KONTROL49

MIDI STUDIO CONTROLLER

Owner's manual



KORG

E 2

Precautions

Location

Using the unit in the following locations can result in a malfunction.

- In direct sunlight
- Locations of extreme temperature or humidity
- Excessively dusty or dirty locations
- Locations of excessive vibration
- Close to magnetic fields

Power supply

Please connect the designated AC adapter to an AC outlet of the correct voltage. Do not connect it to an AC outlet of voltage other than that for which your unit is intended.

Interference with other electrical devices

Radios and televisions placed nearby may experience reception interference. Operate this unit at a suitable distance from radios and televisions.

Handling

To avoid breakage, do not apply excessive force to the switches or controls.

Care

If the exterior becomes dirty, wipe it with a clean, dry cloth. Do not use liquid cleaners such as benzene or thinner, or cleaning compounds or flammable polishes.

Keep this manual

After reading this manual, please keep it for later reference.

Keeping foreign matter out of your equipment

Never set any container with liquid in it near this equipment. If liquid gets into the equipment, it could cause a breakdown, fire, or electrical shock.
Be careful not to let metal objects get into the equipment. If something does slip into the equipment, unplug the AC adapter from the wall outlet. Then contact your nearest Korg dealer or the store where the equipment was purchased.

THE FCC REGULATION WARNING (for U.S.A.)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modification to this system can void the user's authority to operate this equipment.

CE mark for European Harmonized Standards

CE mark which is attached to our company's products of AC mains operated apparatus until December 31, 1996 means it conforms to EMC Directive (89/336/EEC) and CE mark Directive (93/68/EEC). And, CE mark which is attached after January 1, 1997 means it conforms to EMC Directive (89/336/EEC), CE mark Directive (93/68/EEC) and Low Voltage Directive (73/23/EEC).
Also, CE mark which is attached to our company's products of Battery operated apparatus means it conforms to EMC Directive (89/336/EEC) and CE mark Directive (93/68/EEC).

About your data

Inadvertent operations or unexpected malfunctions may cause the contents of memory to be lost. To safeguard your important data, please save it on your computer. Korg will accept no responsibility for any damages resulting from loss of data.

About the software license agreement

You must read the separate "Software license agreement" before you install the software for this product. Installing this software will be considered as your acceptance of this agreement.

Conventions in this manual

Encoders and keys [ ]

Encoders and keys on the KONTROL49's panel are enclosed in square brackets [ ].

Parameters " "

Parameters are enclosed in double quotation marks " ".

and note symbols

These symbols respectively indicate a point of caution and a note of advice.

About the example displays

Parameter values etc. in the sample displays printed in this manual are only examples; they will not necessarily match the displays on your KONTROL49.

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* The "Built for Mac OS X" graphic trademarks of Apple Computer, Inc., used under license.
* Windows XP is a registered trademark of Microsoft Corporation in the U.S. and other countries.
* All other product and company names are trademarks or registered trademarks of their respective holders.
* All specifications are subject to change without notice.

Table of Contents

Contents of the package

The KONTROL49 comes with the following items.
When you open the package, make sure that all of these items are present. If any items are missing, please contact your Korg distributor.

☐ **The KONTROL49 (main unit)**

☐ **AC adaptor**

This supplies power to the KONTROL49. Use the AC adaptor if you will be connecting a MIDI sound module etc. to the KONTROL49 via MIDI. (☞p.6 “Making connections and turning the power on”)

☐ **USB cable**

Use this to connect the KONTROL49 to your computer. (☞p.6 “Making connections and turning the power on”)

☐ **CD-ROM**

This contains a driver for installation in your computer (Windows XP only), Editor Librarian software.

Never attempt to play back the CD-ROM on audio CD player. Doing so may result in damage to your hearing as well as to your CD player/audio speakers.

☐ **Trigger pad name sheet/labels**

You can affix labels to the name sheet to indicate the MIDI messages or controlled content assigned to each of the KONTROL49’s trigger pads, and place the sheet over the trigger pad section. This is a convenient way to remember what is assigned to each of the sixteen trigger pads.

☐ **Owner’s manual, MIDI Implementation chart**

☐ **Installation Guide**

☐ **Software license agreement**

Introduction

Thank you for purchasing the Korg MIDI Studio Controller KONTROL49.
To ensure long, trouble-free operation, please read this manual carefully.

Main features

The **KONTROL49** is a MIDI controller that provides all the controllers you need for computer-based music production and performance.
Equipped with a velocity-sensing four-octave keyboard, eight encoders, eight sliders, vector joystick, two switches, pitch and mod wheels plus sixteen trigger pads, the KONTROL49 allows you to freely control your software synthesizers and DAW (Digital Audio Workstation), as well as external MIDI sound modules and other musical equipment. In addition, the KONTROL49 is perfect for live performance, allowing you to send program changes and other MIDI messages with a single touch, and play on the keyboard and trigger pads in realtime.

Eight encoders and eight sliders with “sub-displays”

You can assign MIDI control change messages (including NRPN or RPN) to the eight encoders and sliders. The encoders and sliders have “sub-displays” that indicate the parameter name and value, and you can even specify the display backlight color to distinguish between different control assignments.

Sixteen velocity-sensitive trigger pads

You can use the velocity-sensitive pads for playing and programming drums, or any other sounds for that matter. The pads aren’t limited to sending notes, though - you can also use them to send MIDI control change messages, for remote control of your software’s Play / Stop / Rec transport – or virtually anything else! The pads can also be used for switching between KONTROL49 setups, called “scenes.”

Wheels, switches and more

The pitch bend wheel, modulation wheel, two assignable switches plus two assignable pedal jacks increase the amount of control available.

Vector joystick

You can assign different MIDI controllers to the X-axis and Y-axis, and use them to intuitively control two parameters on the WAVESTATION software synthesizer or on an effect processor, etc.

Easy parameter assignments

The displays provide plenty of information, making it easy to assign MIDI messages to each controller.

Twelve user memories

You can set up the KONTROL49’s controllers to match your soft synthesizer or DAW, and save these settings in memory as one of twelve “scenes.” Using the trigger pads, you can switch instantly between saved scenes.
The KONTROL49 also contains pre-loaded scenes suitable for controlling popular sequencer software and soft synthesizers.

Included editor software and template sheet data

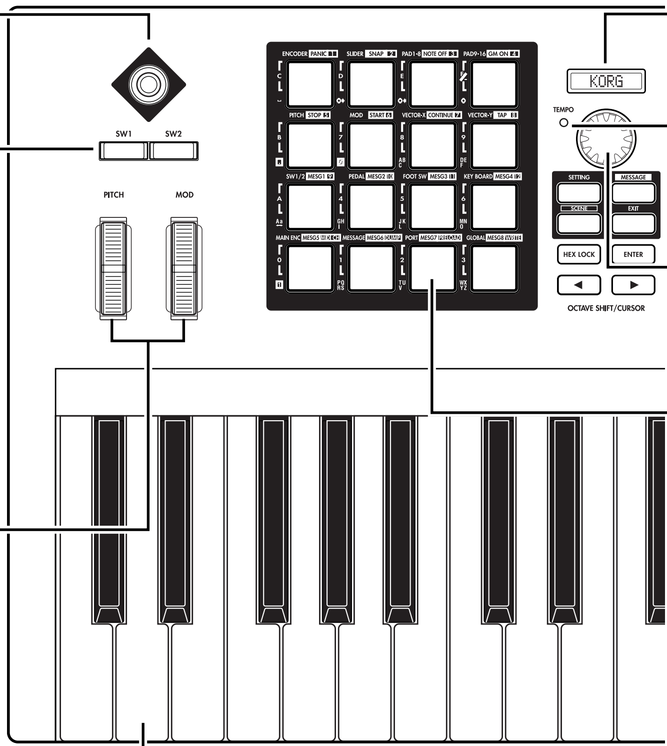
The KONTROL49 comes with Editor Librarian software that lets you edit and manage scene data on your computer, as well as template scene data for popular DAWs and software synthesizers. Seamless integration of the KONTROL49 and the Editor Librarian software makes it easy to edit the template scenes or create your own original scenes.

Bus power is supported

The KONTROL49 can be powered from the USB bus, requiring no additional power. Simply using a single USB cable to connect it to your computer will provide power and establish communication. You can also power the KONTROL49 using the AC adapter.

Parts and what they do

Front panel



Vector joystick

You can assign separate **control change** messages to the up / down and left / right (X and Y) axes.

Switch 1, Switch 2

You can use these switches in either the one-parameter (Inc / Dec type) or two-parameter (SW × 2) mode.

- One-parameter mode assigns a single **control change** or **program change** to both switches, allowing the value to be increased or decreased by SW1 and SW2.
- Two-parameter mode lets you assign completely separate messages (damper, sostenuto, soft pedal, portamento, or other **control change**) to SW1 and SW2.

Bend / Mod Wheels

You can assign MIDI messages to these wheels and use them to control a connected device or an application on your computer.

- BEND can be assigned to **pitch bend**, **master balance**, **aftertouch**, **velocity**, or a **control change**.
- MOD WHEEL can be assigned to **aftertouch**, **velocity**, or a **control change**.

Keyboard

This is a full-size 49-key velocity-sensitive keyboard. It transmits **note messages**.

Main display

In each mode this displays the scene name, page, parameters, and other information.

TEMPO LED

The TEMPO LED blinks every quarter-note, according to the MIDI Clock tempo specified by the main encoder.

Main encoder

In Play mode you can use this to adjust the MIDI Clock **tempo** or to transmit **program changes**. In other modes this is used to edit parameters.

Trigger pads

You can assign **control changes** or **note messages (C-1–G9)** to the trigger pads.
When assigning a control change, you can choose to transmit a value of 127 when the pad is pressed and 0 when released, or alternately transmit values of 0 and 127 each time the pad is pressed.
When assigning a note message, you can specify whether a note-on (with velocity) will be transmitted when the pad is pressed and a note-off when released, or alternately transmit both note-on and note-off messages each time the pad is pressed.
In other modes, you can use the trigger pads to select pages, to input numerical values, or perform various other functions depending on the mode. (☞p.4 “About the trigger pad functions”)

[MESSAGE] key
When you hold down this key and press a trigger pad to which a message is assigned, the assigned MIDI message will be transmitted.

[SETTING] key
To enter Setting mode, hold down this key and press the trigger pad for the desired page.

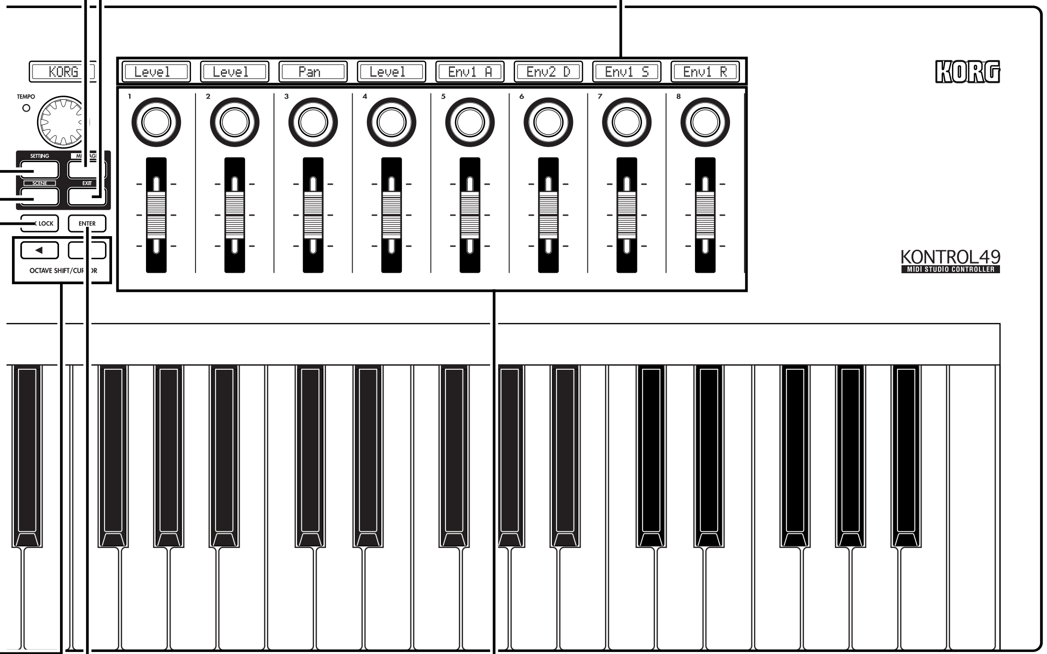
[SCENE] key
To enter Scene mode, hold down this key and press the trigger pad for the desired page.

[HEX LOCK] key
Press this key to enable and disable HEX LOCK mode. When it's enabled, the LED will light up, and you can then use the trigger pads to input hexadecimal values. Also, MIDI messages and values shown in the main display and sub-displays will be shown in hexadecimal form.

OCTAVE SHIFT / CURSOR keys
In Play mode, these function as Octave Shift keys to shift the octave of the keyboard. (☞p.18)
When editing parameters or entering text in other modes, these act as cursor keys (both keys will light).

[EXIT] key
Press this key to return to Play mode from Setting, Message, or Scene modes, or to cancel a setting or operation. In addition, pressing this in Play mode will cause the current encoder and slider values to appear in the sub-displays.

Sub-displays
These show the names assigned to each encoder and slider, or the values that are transmitted when they are moved.



[ENTER] key
In Setting mode, press this key to finalize a setting or value.
In Message mode, press this key to transmit the specified MIDI message.

Encoders and sliders
You can assign a different MIDI message to each encoder and slider, and use them to control connected devices, soft synthesizers, and DAW programs on your computer.
You can assign **control change** messages **(including RPN and NRPN)** to the encoders and sliders.

About the trigger pad functions

The trigger pads are one of the most useful parts of the KONTROL49. They're used for many different important functions, as described below.

Transmit MIDI messages

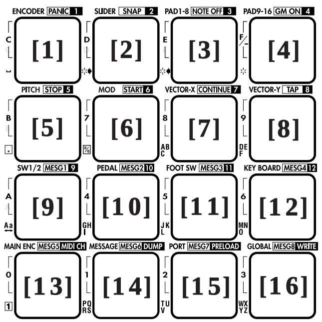
In Play mode, the MIDI message assigned in Setting mode will be transmitted each time you press a pad.
In Message mode, you can hold down the [MESSAGE] key and press a pad to transmit a specified MIDI message.

Select the different KONTROL49 modes

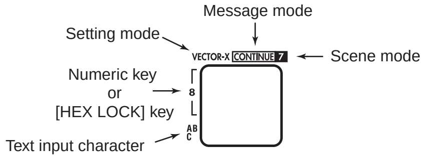
When you want to move from Play mode to another mode, hold down the mode key of the desired mode and press a pad to enter that mode or to transmit a MIDI message.

About the pad numbers

The pad numbers printed in this owner's manual (e.g., pad [1]) correspond to the KONTROL49's pads as follows.



The printing around each pad on the KONTROL49's panel indicates the page or function in each mode.

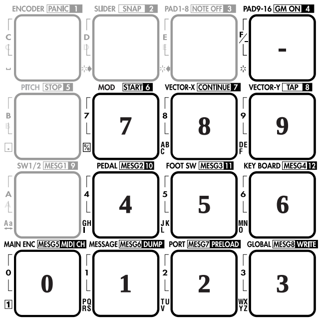


Input numerical values

In Setting, or Scene modes, you will use the pads to input numerical values such as MIDI control change numbers or MIDI channels. You can input values in either decimal or hexadecimal form.

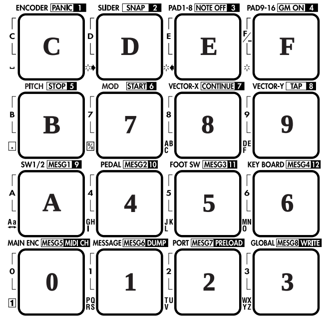
Using the trigger pads to input decimal values

To input a decimal value, make sure that the [HEX LOCK] key is unlit, and use the pads shown below. The value will be cleared if you press any other pad.



Using the trigger pads to input hexadecimal values

To input a hexadecimal value, press the [HEX LOCK] key to make it light, and use the pads shown below.



Rear panel

[Contrast adjustment] knob

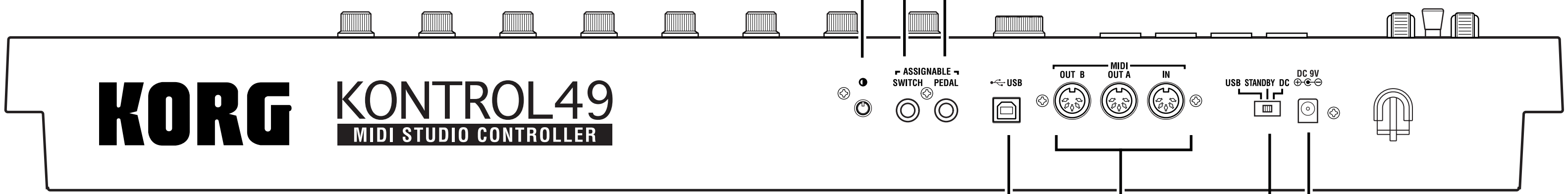
This adjusts the display contrast. The visibility of the display will vary depending on your viewing angle. Adjust this knob as necessary.

SWITCH jack

You can connect a damper pedal or pedal switch (such as the Korg DS-1H or PS-1 - both sold separately)to this jack.
You can assign the foot switch to control **damper, sostenuto, soft pedal, portamento, or another control change**. You can also choose how the value of the MIDI message will be transmitted when the pedal is pressed.

PEDAL jack

You can connect a foot controller or expression pedal (such as the Korg XVP-10 or EXP-2 - both sold separately) to this jack.
You can assign the foot pedal to control **master volume, foot pedal, portamento time, volume, panpot, expression, or another control change**.



USB connector

Use a USB cable to connect the KONTROL49 to your computer for MIDI message transmission and reception.

MIDI connectors

You can connect external MIDI devices to these connectors, for sending and receiving MIDI messages. The MIDI connectors will function differently depending on whether your computer is connected to USB connector. For details, refer to “About the KONTROL49’s MIDI connectors” (☞p.46).

Power switch

This switch powers-on the KONTROL49. Set the switch to the appropriate position for the type of power connection you are using. (☞p.6 “Making connections and turning the power on”)

Power supply connector

Connect the included AC adapter here.
Use the AC adapter if you are using the MIDI connectors to control a connected device. If you use a USB cable to connect the KONTROL49 to your computer, power will be supplied from the computer (USB bus power) and the AC adapter will not be necessary.

⚠ Some computers may not be able to supply power via USB bus power. In this case, use a self-powered USB hub (that obtains power from an external supply) or use the AC adapter.

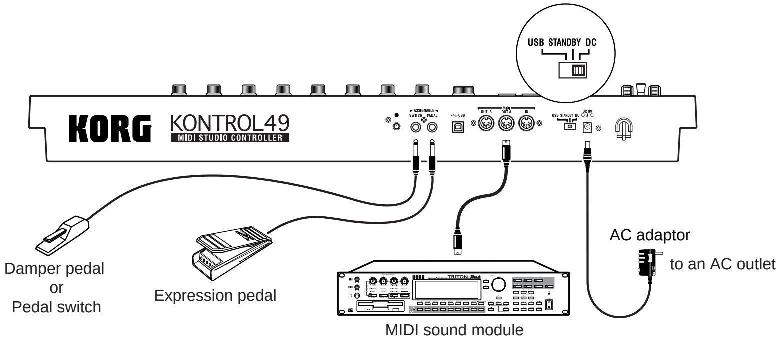
Making connections and turning the power on

MIDI & AC adapter connection

Before you make connections, you must turn off the power of all devices. Failure to do so may damage your speaker system or cause malfunctions.

1 Connect the AC adapter to the power connector of the KONTROL49, and plug the adaptor into an AC outlet.

2 Use a MIDI cable to connect the KONTROL49 to your external device. If you will be using a pedal, connect it to the PEDAL jack.



3 Set the KONTROL49's power switch to the **DC** position to turn on the power.

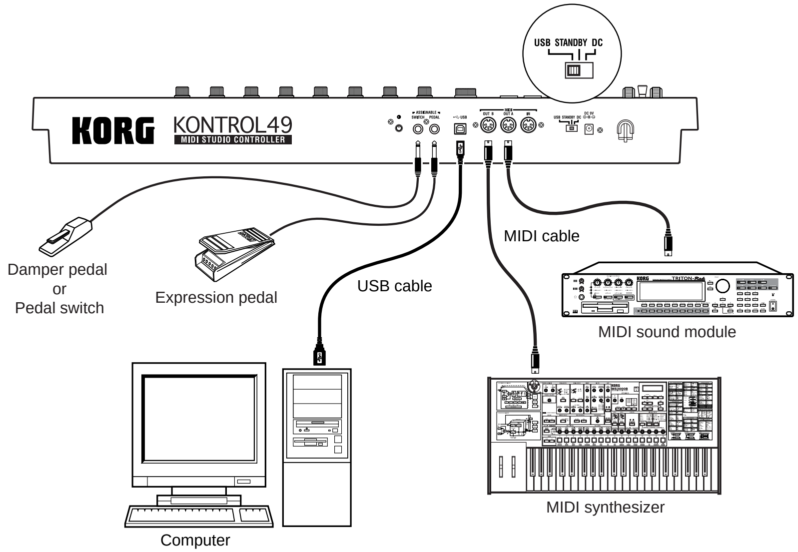
4 Turn on the power of the connected equipment.

5 When you are ready to turn off the power, set the KONTROL49's power switch to **STANDBY**.

Never turn off the power while you are saving settings (i.e., while the Write operation is occurring). Doing so may damage the internal data.

USB connection

1 Use a USB cable to connect the KONTROL49 to the USB connector of your computer. You can leave your computer turned on when you make USB connections. If you will be using a pedal, connect it to the PEDAL jack. The MIDI OUT A connector transmits MIDI messages from the KONTROL49's encoders and other controllers. The MIDI OUT B connector transmits MIDI messages from the USB-connected computer. (☞p.46)



note The KONTROL49 can also be used as a USB-MIDI interface. If a MIDI sound source is connected to the MIDI OUT A connector, you'll be able to control it from the KONTROL49's keyboard and controllers. If a MIDI sound source is connected to the MIDI OUT B connector, it will be able to receive data from your computer.

2 Set the KONTROL49's power switch to **USB** to turn on the power. When using a USB connection, the power is supplied from the connected computer (this is referred to as "bus power"). The same applies if you are using a self-powered USB hub.

You won't usually need to use the AC adapter if you are using a USB connection. However if your computer does not supply a large amount of power via USB, or if you have connected several bus-powered devices to a USB hub, the power supplied via USB may be insufficient. (If this occurs, the main display will indicate "LowPower.") In such cases, use the AC adapter, and set the power switch to **DC**.

3 When you are ready to turn off the power, set the power switch to **STANDBY**.

Never turn off the power while you are saving settings (i.e., while the Write operation is occurring). Doing so may damage the internal data.

Operation

About the KONTROL49's modes

The **KONTROL49** has four modes: **Play**, **Setting**, **Message**, and **Scene**.

1. Play mode

In this mode you can use the keyboard, pads, sliders, encoders, and other controllers to play and control connected MIDI sound modules or soft synthesizers and DAW programs running on your computer.

The assignments for each controller ("scene parameters") can be recalled as a "scene" in Scene mode, or specified in Setting mode.

2. Setting mode

In this mode you can set both the scene parameters (assignments for each controller) and the global parameters (settings that apply to the entire KONTROL49).

Scene parameters include the MIDI messages assigned to each controller. You can create descriptive names for the functions assigned to the sliders and rotary encoders. These names will appear in the sub-displays. The MIDI channel and USB-MIDI port on which the assigned messages are transmitted are also scene parameters. Set these parameters as appropriate for the connected MIDI sound module, or for the soft synthesizer or DAW program you are using on your computer.

Global parameters include settings such as the type of connected pedal, the LCD backlight, and pad illumination.
The scene parameters can be stored in the KONTROL49's internal memory in Scene mode. The stored settings are called a "scene."
Global parameters will be saved automatically in internal memory when you press the [ENTER] key to return from Setting mode to Play mode.

3. Message mode

In this mode you can transmit various MIDI messages that are assigned to the pads.

4. Scene mode

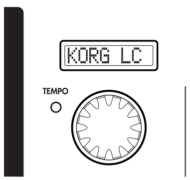
In Scene mode you can do the following things.

- Choose a scene from user memory.
- Select the scene and global MIDI channel.
- Save the scene parameter settings you made in Setting mode as a "scene" into user memory.
- Load the preset scenes into user memory, restoring the factory settings.
- Transmit or receive dumps of internal scenes or global parameters.

Quick Start

1. Turning on the power

Connect the KONTROL49 to your computer, and turn on the power. (☞p.6 "Making connections and turning the power on")



You will automatically enter Play mode.

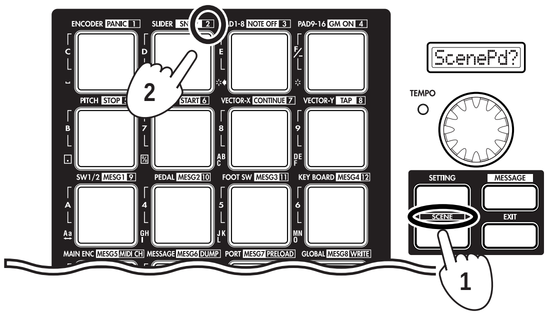
The main display shows the name of the currently selected scene.

Start up the software that you want to operate from the KONTROL49, and make the appropriate USB and MIDI settings in your software. For details on USB and MIDI settings, refer to the owner's manuals for your software and computer.

2. Selecting a scene

You can assign parameters to the KONTROL49's encoders, sliders, and other controllers in order to control your DAW or soft synthesizers just as you like. These settings are collectively called a "**scene**."
The KONTROL49 contains twelve preset scenes. Refer to the scene list in the included CD-ROM and select the most suitable scene for controlling your software. The included CD-ROM contains numerous scenes designed for specific software, in addition to the twelve factory-set internal scenes.

- As an example, here's how to select **scene 2**.



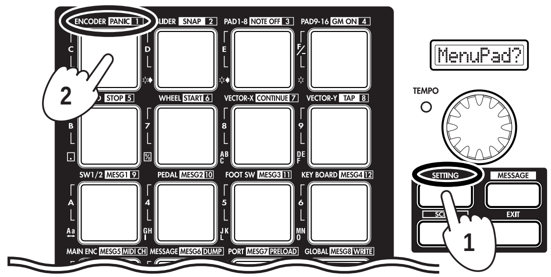
Step 1. Press the [SCENE] key.
While you hold down the key, the main display will indicate "ScenePd?" Trigger pads to which a scene is registered will light, and the pad for the currently selected scene number 1 will blink. (☞p.52 "Scene mode")
The scene number matches the number that is printed at the upper right of each pad.

Step 2. Hold down the [SCENE] key and press the pad that has "2" printed above it. The scene will change, and the main display will indicate the name of scene number 2.
Step 3. When you release the [SCENE] key you will return to Play mode. Operate the KONTROL49's controllers to control the software on your computer. (☞p.13 "Play mode")

3. Making controller assignments

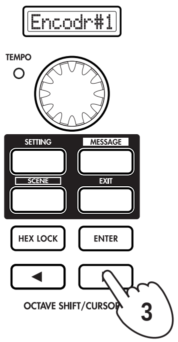
You can assign the pads, sliders, encoders, vector joystick, and pedals to a wide variety of MIDI messages.

- As an example, we'll assign **control change number 10** on **MIDI channel 1 to encoder 1**, and **control change number 15** on **MIDI channel 2** to encoder 2.



Step 1. Press the [SETTING] key.
While you hold down the key, the main display indicates "MenuPad?" and the KONTROL49 waits for you to press one of the sixteen pads.

Step 2. Continue holding down the [SETTING] key, and press pad 1 which is marked as [ENCODER]. (☞p.20)
The main display will indicate "Encodr#1".



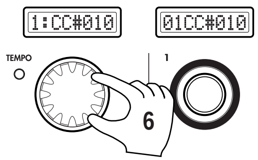
Step 3. Release the [SETTING] key.
The OCTAVE SHIFT / CURSOR [◀] key will light red, and the [▶] key will light green. Red indicates that there are no further pages in that direction, and green indicates that further pages exist in that direction.

Step 4. Use the main encoder to select the number of the encoder you want to assign.
Since we're making an assignment for encoder 1, make sure that the main display indicates "Encodr#1".

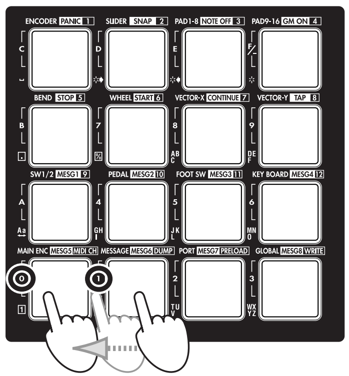
Step 5. Press the OCTAVE SHIFT / CURSOR [▶] key.
You will move to the MIDI message select page. (☞p.20)
The main display will show the MIDI message that is currently assigned to encoder 1.

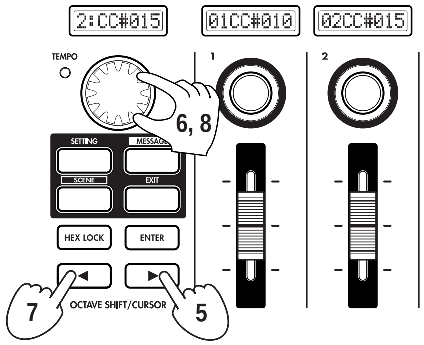
Step 6. Use the main encoder or the pads to select control change number 10. (☞p.20)
The contents of the sub-display above encoder 1 will also change.

note Alternatively, you can use the pads to input the control change number.



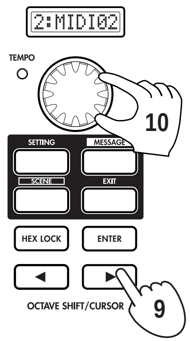
or





Step 7. Next, press the OCTAVE SHIFT / CURSOR [◀] key to return to the page where you select the encoder to assign.

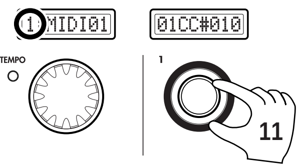
Step 8. Set the encoder number to "Encodr#2" and set the control change number to 15.
Note that the sub-display above encoder 2 is also updated.



Step 9. Press the OCTAVE SHIFT / CURSOR [▶] key.
The MIDI channel setting page will appear.
Since we just made an assignment for encoder 2, here we will specify the MIDI channel for encoder 2.

Step 10. Use the main encoder to select the desired channel.

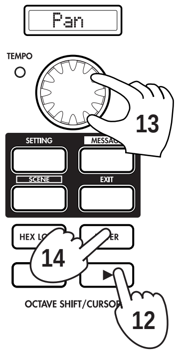
Next we'll specify the MIDI channel for encoder 1.



Step 11. We are back in the page where you select the encoder to assign, but you can also make the setting by directly operating the controller you want to assign.
Rotate encoder 1, and notice that both the main display and the encoder 1 display change.

You can use also this method in the MIDI message select page to quickly edit the assignments. You can also change the assignments for two or more encoders at once while watching the sub-displays.

note You can use the same method to make assignments for sliders as well.



Step 12. Press the OCTAVE SHIFT / CURSOR [▶] key. The name edit page will appear.

Step 13. There are three ways to input a name; you can use the main encoder, the pads, or the encoders or sliders. You can input a name of up to eight characters. For details, see “Inputting a name” (☞p.22).
When the cursor arrives at the eighth character, the OCTAVE SHIFT / CURSOR [▶] key will light red, and the [ENTER] key will blink.

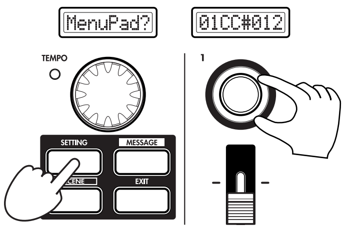
Step 14. When you’ve finished inputting a name, press [ENTER] to apply the setting.
You will then return to Play mode.
If you press the [ENTER] key in one of the preceding pages, the settings will be updated to the assignments you made up to that point.

note If you assign an RPN or NRPN message, the page structure will be different. (☞p.21)

Go ahead and make settings for other controllers as well, to create your scene. For more about assigning other controllers, “Setting mode” (☞p.19)

Quick Assign

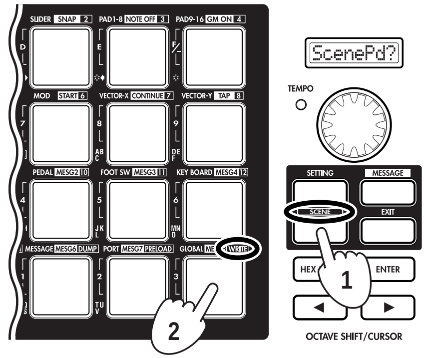
If you just want to set the control change number for an encoder or slider, here’s a simpler way to make the assignment.



Hold down the [SETTING] key and operate the encoder or slider you want to assign. The sub-display will change to show the MIDI message you select. When you release the [SETTING] key, the assignment will be updated and you will return to Play mode.
If you decide to cancel, press the [EXIT] key. (☞p.23)

4. Saving a scene

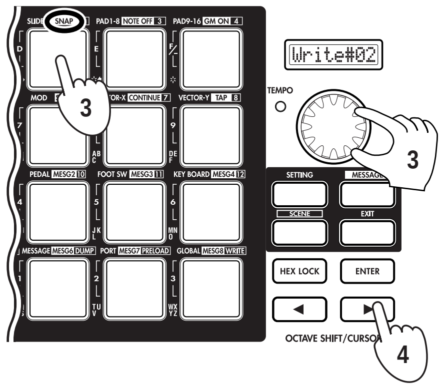
If you don’t save your edited controller assignments, your changes will be lost when you select a different scene or turn off the power. Here’s how to save your controller assignments in a new scene so you won’t have to re-create them later.



Use the Scene mode to save your scenes. (☞p.55)

Step 1. Press the [SCENE] key.

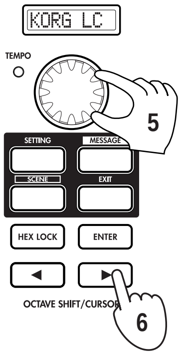
Step 2. Continue holding down the [SCENE] key, and press pad [16] (assigned to the [WRITE] function) to enter the WRITE page.



In this example, let’s save your new scene in scene 2.

Step 3. Press pad 2 or use the main encoder to select scene number 2.

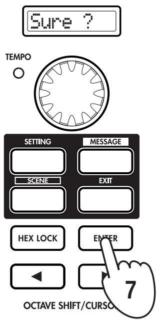
Step 4. After you have made your selection, press the OCTAVE SHIFT / CURSOR [▶] key to move to the next page.



The page in which you edit the scene name will appear.

Step 5. Input a scene name using the main encoder, the pads, or the encoders or sliders.
You can input a name of up to eight characters. For details, see “Inputting a name” (☞p.22).

Step 6. When you’ve finished inputting the name, press the OCTAVE SHIFT / CURSOR [►] key or the [ENTER] key to proceed to the next page.

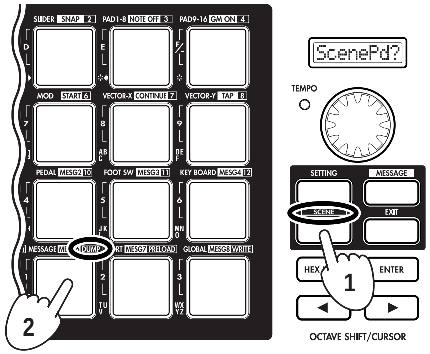


Step 7. This page asks you for confirmation. To save the scene, press the [ENTER] key.
When the scene has been saved, the main display will indicate “Complete” and you will return to Play mode.

If you decide to cancel mid-way through the Save procedure, press the [EXIT] key.

5. *Managing scene sets on your computer*

Using the included Editor Librarian software, the twelve scenes stored in the KONTROL49 can be saved on your computer as a set for editing and data management.



Data transfer to and from the Editor Librarian software is performed in the Scene mode DUMP page. (☞p.53)

Step 1. Press the [SCENE] key.
The main display indicates “ScenePd?”

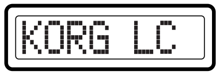
Step 2. Continue holding down the [SCENE] key, and press pad 14 (assigned to the [DUMP] function).
You will enter the DUMP page.

Start up the KONTROL49 Editor Librarian software, and press the “Receive” button to load the scene set from the KONTROL49’s memory. Then press the “Save” button to name the scene set and save it as a file. A file you create in this way can be loaded into the KONTROL49 whenever needed.
For details on using the Editor Librarian software, refer to “Editor Librarian software manual” on the included CD-ROM.

Play mode

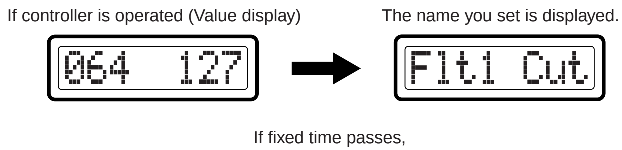
In Play mode, you can use the KONTROL49 to control connected MIDI equipment or soft synthesizers and DAW software on your computer.

When you power-on the KONTROL49 it will always start up in Play mode. The main display will show the current scene name. Normally, it will start up with the scene that was last selected when you turned off the power.



In this state when you operate the main encoder, pads, vector joystick, pitch bend & mod wheels, switch 1/2, or pedal, the main display will show the MIDI message assigned to that controller and its value. (☞"Using the controllers")

The sub-displays will show the name assigned to each encoder. When you operate an encoder or slider, the sub-display will show the values of both controllers.
When a certain interval of time elapses after you operate the controller, the display will switch to the name that is assigned to the last-operated controller.



note Normally, each sub-display will show either the encoder name or the slider name. You can only see one name at a time, however. If you want to check the name that is not currently displayed, press the [ENTER] key.

note You can change the backlight color of main display and sub-displays. (☞p.46 "Setting mode–[16] GLOBAL (Global setting)")

Using the controllers

In Play mode you can use seven types of controllers.

1. Encoders and sliders

These controllers transmit the assigned message each time you operate them.

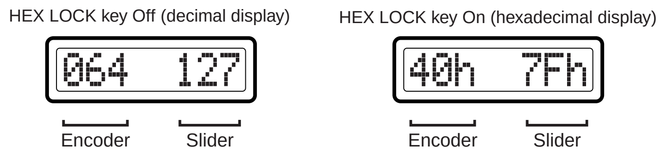
Display

When you operate an encoder or slider, its sub-display shows the current value. When you turn on the power, the names assigned to the encoders are displayed. If no MIDI message has been assigned, the display indicates "NoAssign."

Example: Control change assign (Pan message)



When you operate either a slider or encoder from this state, the values of both controllers are displayed. For the controller you are not operating, the value of the current position is displayed.
If no MIDI message is assigned, "---" is displayed.



The backlight color of the sub-displays will change depending on the controller you operate. With the default settings, this will be green when you operate a slider, and red when you operate an encoder.

When a certain interval of time elapses after you operate the controller, the name assigned to the last-operated controller will appear.

note The KONTROL49 will remember the most recent value you have set (the value - not the function, which is already saved as part of the scene) for each of the rotary encoders, in every scene. This information is retained only until the power is turned off.

note If you hold down the [EXIT] key while operating a controller, the sub-display indication will not switch to the name of the assigned setting; the controller value will continue to be displayed. This lets you edit a setting accurately while watching its actual value.

note You can change the backlight color of the sub-displays. (☞p.46 “Setting mode–[16] GLOBAL (Global setting)”)

Encoder and slider-related settings

- You can assign a MIDI message to an encoder. For details, see “Setting mode–[1] ENCODER (Encoder assignment)” (☞p.20).
- You can assign a MIDI message to a slider. For details, see “Setting mode–[2] SLIDER (Slider assignment)” (☞p.24).
- You can specify the USB-MIDI port from which the assigned MIDI message is transmitted. For details, see “Setting mode–[15] USB-MIDI PORT (USB-MIDI Port setting)” (☞p.44).

2. Trigger pads

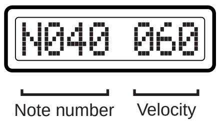
When you press a pad, it will transmit the assigned note data or control change.
Pads to which note data is assigned will also transmit velocity. (“Setting mode–[3] PAD 1–8 (PAD 1–8 assignment)” (☞p.24) or “Setting mode–[4] PAD 9–16 (PAD 9–16 assignment)” (☞p.26))
Pads to which a control change is assigned will transmit a value of either 0 or 127.

Display

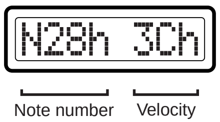
If note data is assigned

When you press a pad, the main display will show the transmitted note number and velocity value.

HEX LOCK key Off (decimal display)



HEX LOCK key On (hexadecimal display)

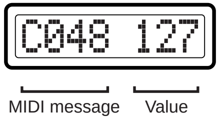


If note data is assigned, the pad will light red once when the message is transmitted.

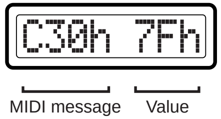
If a control change is assigned

When you press a pad, the main display will show the contents of the transmitted control change message.

HEX LOCK key Off (decimal display)



HEX LOCK key On (hexadecimal display)



If a control change is assigned, the pad will light green. If the pad operation is set to Momentary, it will light orange when you press the pad to transmit a value if 127. (It will once again light green when a value of 0 is transmitted.) If the pad operation is set to Toggle, the pad will alternate between green and orange each time you press it.

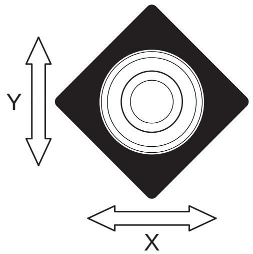
note You can change the lit status of the pads. (☞p.46 “Setting mode–[16] GLOBAL (Global setting)”)

Trigger pad-related settings

- You can assign a MIDI message to a trigger pad. For details, see “Setting mode–[3] PAD 1–8 (PAD 1–8 assignment)” (☞p.24) or “Setting mode–[4] PAD 9–16 (PAD 9–16 assignment)” (☞p.26).
- You can specify the USB-MIDI port from which the assigned MIDI message is transmitted. For details, see “Setting mode–[15] USB-MIDI PORT (USB-MIDI Port setting)” (☞p.44).
- You can specify the pad illumination for when a MIDI message is transmitted. For details, see “Setting mode–[16] GLOBAL (Global setting)” (☞p.46).

3. Vector joystick

When you move the vector joystick, it will transmit the assigned MIDI message. You can assign MIDI messages to the up / down (Y) and left / right (X) directions.
For the up / down / left / right directions, the assigned MIDI message will be transmitted with a value in the range of 0–127.



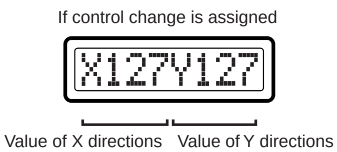
Display

When you operate the vector joystick, the main display will show the message that is transmitted.

note If you've assigned a control change, you can turn the [HEX LOCK] key on (lit red) to see the contents of the MIDI message in hexadecimal.

When the vector joystick is operated

If a control change is assigned, a value in the range of 0–127 is displayed.



If no MIDI message is assigned (NoAssign), the main display will not change even if you operate the vector joystick. Instead, the display will continue to show the scene name.

Vector joystick-related settings

- You can assign a MIDI message to the left / right direction of the vector joystick. For details, see "Setting mode–[7] VECTOR-X (Vector-X assignment)" (☞p.31).
- You can assign a MIDI message to the up / down direction of the vector joystick. For details, see "Setting mode–[8] VECTOR-Y (Vector-Y assignment)" (☞p.32).
- You can specify the USB-MIDI port from which the assigned MIDI message is transmitted. For details, see "Setting mode–[15] USB-MIDI PORT (USB-MIDI Port setting)" (☞p.44).

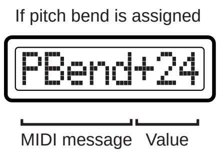
4. Pitch Bend, Mod Wheel

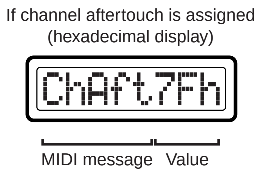
When you operate these controllers, the assigned MIDI message will be transmitted. Bend can be assigned either to transmit the same parameter for the entire upward and downward range, or to transmit separate parameters for the upward and downward ranges.

Display

When you operate the Pitch Bend or Mod Wheel controllers, the contents of the message will appear in the main display.

note Depending on the assigned MIDI message, you can turn the [HEX LOCK] key on (lit red) to see the contents of the MIDI message in hexadecimal.



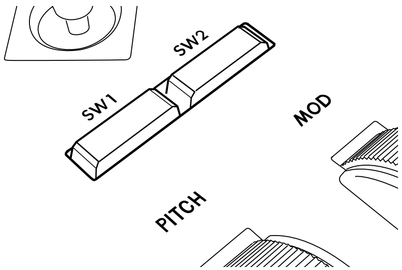


Pitch Bend & Mod Wheel controller settings

- Assign a MIDI message to the Pitch Bend controller. For details, see “Setting mode–[5] Pitch Bend (Pitch Bend assignment)” (☞p.26).
- Assign a MIDI message to the Mod Wheel controller. For details, see “Setting mode–[6] MOD (MOD Wheel assignment)” (☞p.30).
- Specify the USB-MIDI port on which MIDI messages will be transmitted. For details, see “Setting mode–[15] USB-MIDI PORT (USB-MIDI Port setting)” (☞p.44).

5. Switches 1 and 2

The assigned MIDI message will be transmitted each time you press switch 1 or switch 2. For switches 1 and 2 you can use either a one-parameter assignment mode (Inc / Dec type) or a two-parameter assignment mode (the two switches will transmit independent messages). The one-parameter mode assigns a single MIDI message to both switches, and lets you increment / decrement the value in steps of one. The two-parameter mode lets you transmit a separate MIDI message from each switch.

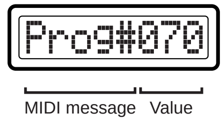


Display

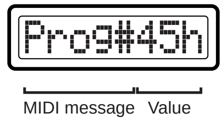
When you operate switch 1 or 2, the contents of the message will appear in the main display.

note Depending on the assigned MIDI message, you can turn the [HEX LOCK] key on (lit red) to see the contents of the MIDI message in hexadecimal.

If program change is assigned (decimal display)



If program change is assigned (hexadecimal display)



If a MIDI message has not been assigned (NoAssign), pressing switches 1 / 2 will not change the indication in the main display (it will continue to show the scene name).
If you’re using the two-parameter assignment mode, the switch will light when you press it to transmit a value of 127.

note If you’re using the one-parameter assignment mode, the value can be reset by pressing switch 1 and switch 2 simultaneously.

Switches 1 and 2 settings

- Assign a MIDI message to switches 1 / 2. For details, see “Setting mode–[9] SW1 / SW2 (SW1 / SW2 assignment)” (☞p.32).
- Specify the USB-MIDI port on which MIDI messages will be transmitted. For details, see “Setting mode–[15] USB-MIDI PORT (USB-MIDI Port setting)” (☞p.44).

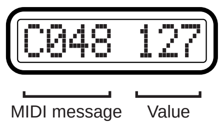
6. Pedal (PEDAL jack / SWITCH jack)

The assigned MIDI message will be transmitted when you operate a foot controller or damper pedal connected to the PEDAL jack or SWITCH jack. Operating the pedal will transmit a value in the range of 0–127. Operating the switch will transmit a value of either 0 or 127.

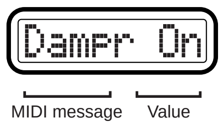
Display

When you operate a connected pedal, the main display will show the contents of the message.

If control change is assigned



If damper is assigned



If no MIDI message is assigned (NoAssign), the main display will not change even if you operate the pedal (the display will continue to show the scene name).

Pedal-related settings

- You can assign a MIDI message to the pedal. For details, see "Setting mode–[10] PEDAL (Pedal assignment)" (☞p.35).
- You can specify the USB-MIDI port from which the assigned MIDI message is transmitted. For details, see "Setting mode–[15] USB-MIDI PORT (USB-MIDI Port setting)" (☞p.44).
- Specify the polarity of the connected pedal switch, and the effective range of the pedal. For details, see "Setting mode–[16] GLOBAL (Global setting)" (☞p.46).

7. Main encoder

You can use the main encoder to adjust the tempo of the MIDI Clock or to transmit program changes.
If a connected device or application is synchronized to MIDI Clock messages from the KONTROL49, you can use the main encoder to control the tempo. The tempo range is **Clock Off** and **020–300**. If you set the encoder to **Clock Off,** MIDI Clock will not be transmitted. MIDI Clock messages are transmitted from the port you specify for MIDI message transmission in Message mode (☞p.44 "[15] USB-MIDI PORT (USB-MIDI Port setting)").
If the main encoder is assigned to transmit program changes, any value in the range of 1–128 can be transmitted. You can also specify that the program change be transmitted together with a Bank Select message.
Depending on the assignment of the main encoder, the [SETTING] key, [MESSAGE] key, and [EXIT] key will operate as follows:

MIDI message	[SETTING] key	[MESSAGE] key	[EXIT] key
NoAssign	No change		
TempoChg	Edit the decimal place	Switch the tempo when released	Always display the Tempo
ProgChg	No change	Transmit Prog# when released	Always display the Prog#
PChg&BS	Edit MSB/LSB	Transmit Prog#&BS when released	Always display the Prog#

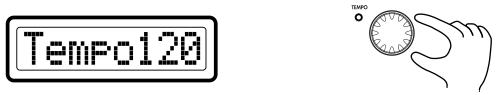
For details, see "Setting mode–[13] MAIN ENC (Main Encoder assignment)" (☞p.40).

note The MIDI Clock tempo defaults to 120 when you turn the power on.

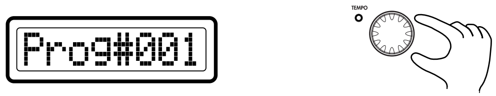
note If TempoChg is assigned, you can hold down the [SETTING] key and turn the main encoder to adjust the first decimal place of the tempo. At this time the range of adjustment will be **20.0–300.0.**
If Program Change & Bank Select is assigned, you can hold down the [SETTING] key and turn the main encoder to edit the Bank Select MSB or LSB.

Display

When tempo change is assigned to the main encoder, the tempo of the MIDI Clock will appear in the main display when you turn the main encoder. The TEMPO LED at the upper left of the main encoder will blink at quarter-note intervals of the specified MIDI Clock tempo.



When either program change or program change & bank select is assigned to the main encoder, the program change number will appear in the main display when you turn the main encoder.



Main encoder settings

- Assign a MIDI message to the main encoder. For details, see "Setting mode–[13] MAIN ENC (Main Encoder assignment)" (☞p.40).
- Specify the USB-MIDI port on which MIDI messages will be transmitted. For details, see "Setting mode–[15] USB-MIDI PORT (USB-MIDI Port setting)" (☞p.44).

note By using Message mode [8] Tap, you can set the desired tempo by tapping pad [8] at the corresponding interval. For details, see "Message mode–[8] TAP (Tap tempo message)" (☞p.51).

8. Keyboard

When you play notes on the keyboard, note messages are transmitted on the keyboard's MIDI channel (☞p.38).

Octave setting

You can use the OCTAVE SHIFT/CURSOR [◀]/[▶] keys to shift the pitch of the keyboard in steps of an octave. If you want to return to the ±0 (normal) setting, press the [◀] and [▶] keys simultaneously.

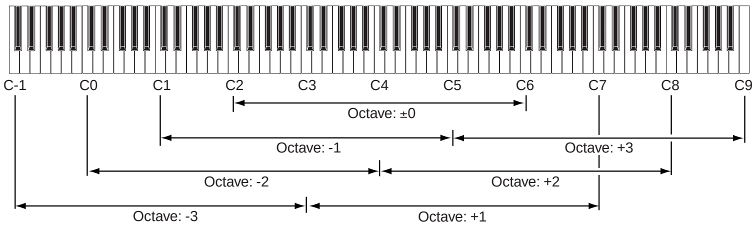
1 Each time you press the [▶] key the pitch will shift upward one octave. The color of the [▶] key indicates the current setting.

Unlit: ±0 octaves
Green: +1 octave
Orange: +2 octaves
Red: +3 octaves

2 Each time you press the [◀] key the pitch will shift downward one octave. The color of the [◀] key indicates the current setting.

Unlit: ±0 octaves
Green: –1 octave
Orange: –2 octaves
Red: –3 octaves

Pitch range adjusted by the Octave Shift keys



Keyboard-related settings

- You can specify the MIDI channel on which note data is transmitted. For details, see "Setting mode–[12] KEYBOARD (Keyboard setting)" (☞p.38).
- You can transpose the keyboard in semitone steps. For details, see "Setting mode–[12] KEYBOARD (Keyboard setting)" (☞p.38).
- You can change the velocity curve. For details, see "Setting mode–[12] KEYBOARD (Keyboard setting)" (☞p.38).
- You can specify the USB-MIDI port from which the note data is transmitted. For details, see "Setting mode–[15] USB-MIDI PORT (USB-MIDI Port setting)" (☞p.44).

Setting mode

In Setting mode you can set both the Scene parameters (the assignment of each controller, etc.) and the Global parameters (overall settings for the entire KONTROL49).

Setting mode is divided into sixteen pages.
Hold down the [SETTING] key (the main display shows “MenuPad?”) and press one of the pads listed below to move to the corresponding page of parameter settings.
If you hold down the [EXIT] key and press the [SETTING] key, the main display will show “MenuPad?” and the KONTROL49 will wait for you to press one of the pads to select a page.

Scene parameter settings

Pad [1] through pad [15] access pages for setting Scene parameters. After you edit these settings, you will need to save them in Scene mode.

Pad No.	Page	Content
Pad [1]	Encoder assignment	Assign messages to encoders (☞p.20)
Pad [2]	Slider assignment	Assign messages to sliders (☞p.24)
Pad [3]	PAD 1–8 assignment	Assign messages to pads [1]–[8] (☞p.24)
Pad [4]	PAD 9–16 assignment	Assign messages to pads [9]–[16] (☞p.26)
Pad [5]	Pitch Bend assignment	Assign messages to Pitch Bend wheel (☞p.26)
Pad [6]	Mod Wheel assignment	Assign messages to Mod wheel (☞p.30)
Pad [7]	Vector-X assignment	Assign messages to the left/right direction of the vector joystick (☞p.31)
Pad [8]	Vector-Y assignment	Assign messages to the forward/backward direction of the vector joystick (☞p.32)
Pad [9]	SW1/2 assignment	Assign messages to Switch 1/Switch 2 (☞p.32)
Pad [10]	Pedal assignment	Assign messages to the connected foot controller (☞p.35)
Pad [11]	Foot SW assignment	Assign messages to connected damper pedal or pedal switch (☞p.36)
Pad [12]	Keyboard assignment	Assign messages to Keyboard MIDI channel (☞p.38)
Pad [13]	Main Enc assignment	Assign messages to main encoder (☞p.40)
Pad [14]	Message assignment	Assign messages to Message mode pad [9]–[16] (☞p.41)
Pad [15]	USB-MIDI Port setting	Make USB-MIDI port settings (☞p.44)

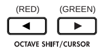
Global parameter settings

Pad [16] access pages for setting Global parameters. These settings are saved automatically when you exit the page or select a different scene.

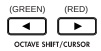
Pad No.	Page	Content
Pad [16]	Global setting	Pedal settings, backlight color, pad illumination settings (☞p.46)

About the OCTAVE SHIFT / CURSOR keys, [ENTER] key, and [EXIT] key

In Setting mode, the OCTAVE SHIFT / CURSOR [◀] / [▶] keys act as cursor keys to move between parameters.
When you hold down the [SETTING] key and press a pad to enter a page in this mode, the key(s) will light green to indicate the direction(s) in which you can move. You cannot move in a direction whose key is dark or lit red.
You can return to the beginning of the selected page by holding down the [▶] key and pressing the [◀] key.



: You can move toward the right to another parameter



: You can move toward the left to another parameter

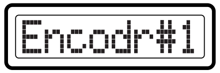
When you arrive at the last parameter, the [ENTER] key will blink. Press the [ENTER] key to apply the setting and return to Play mode. If you press [ENTER] before you arrive at the last parameter, your settings up to that point will be applied and you will return to Play mode.
Press the [EXIT] key if you decide to discard your changes before pressing [ENTER].

Setting mode

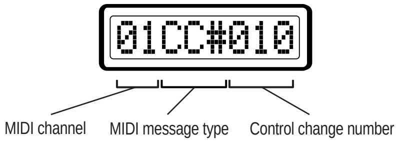
[1] ENCODER (Encoder assignment)

The Encoder assignment page lets you assign MIDI messages to the rotary encoders, specify the MIDI channel on which the messages will be transmitted, etc. You can assign a control change (CC#), RPN, or NRPN message to each encoder.

1 Hold down the [SETTING] key and press pad [1].
You will be in the Encoder assignment page, and the [SETTING] key and pad [1] will light. The main display indicates "Encoder Select," prompting you to select the encoder to assign.



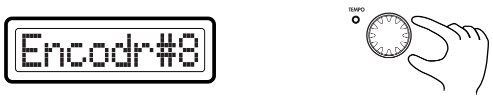
Each sub-display indicates the MIDI message assigned to the corresponding encoder, and the MIDI transmit channel.



note The selectable parameters or values will blink in the main display.

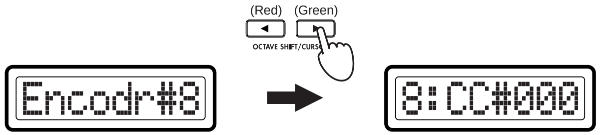
note If you want to check the MIDI messages assigned to an encoder or slider, enter Setting mode and check the sub-displays.

2 Use the main encoder to choose the encoder to which you want to assign a MIDI message. Alternatively, you can select the desired encoder simply by turning it directly.



note If SW1 and 2 are both lit, you can also use these to select an encoder to assign.

3 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "Message Select" (select the MIDI message).



4 Use the main encoder or the pads to select the MIDI message you want to assign.

NoAsgn (No Assign)
No MIDI message is assigned to the selected encoder. If you select **NoAsgn**, press the [ENTER] key (blinking) to update the setting. (☞**Step 9**)

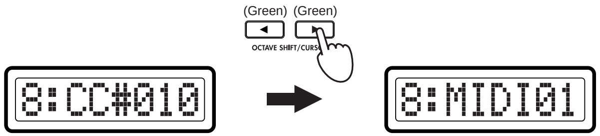
CC#000-127 (Control Change)
Assigns the selected control change message. (☞p.56 "Available MIDI messages")

NRPN, RPN
Assigns an NRPN or RPN to the encoder. If you select **NRPN** or **RPN**, you will need to specify the "MSB" and "LSB" for the controller. For details, see "Setting mode–Assigning NRPN or RPN" (☞p.21).

note Control change, NRPN or RPN, and MIDI channel values can also be set by directly operating the encoder itself (or the slider if making a slider assignment). To make a setting for a different encoder (or slider), simply move that encoder (or slider). The display will show the setting for the encoder (or slider) you operated, and the display backlight color will change accordingly.

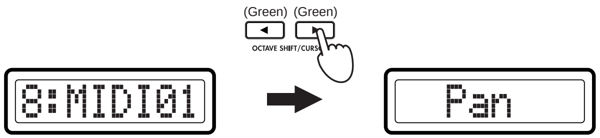
note You can press the [HEX LOCK] key and input hexadecimal values.

5 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "MIDI Channel" (specify the MIDI channel).



6 Use the main encoder or the pads to select the MIDI channel on which the MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 "About the trigger pad functions–Input numerical values")

7 Press the OCTAVE SHIFT / CURSOR [►] to proceed to "Name," where you can specify a name for the encoder.



8 Specify the desired name for the assignment. In Play mode, the name you specify is shown in the sub-display. For the procedure, see "Inputting a name" (☞p.22).

9 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

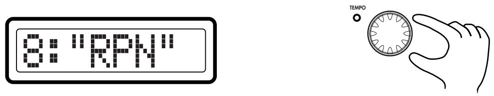
⚠ If you want to keep the changes you've made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see "Scene mode–[16] WRITE" (☞p.55).

■ Assigning NRPN or RPN

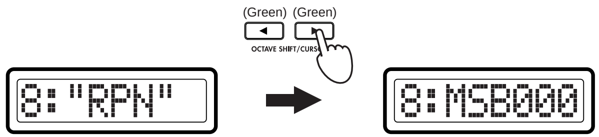
If you select **NRPN** or **RPN** in "Message Select," you need to set the "MSB," "LSB," and "MIDI Channel" for the message.

RPN (Registered Parameter Number) is a type of message used to make settings that are not limited to devices made by a single manufacturer. Messages of this type include **RPN Fine Tune [MSB=00, LSB=01]**, **RPN Coarse Tune [MSB=00, LSB=02]**, and **RPN Pitch Bend Range [MSB=00, LSB=00]**.
NRPN (Non Registered Parameter Number) is a type of message that can be freely used by instrument manufacturers and devices.

1 In "Message Select," select **NRPN** or **RPN**.
You can select these by turning the main encoder toward the right following CChg#127.

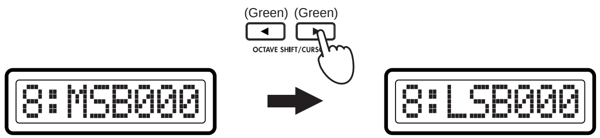


2 Press the OCTAVE SHIFT / CURSOR [►] to proceed to "MSB."



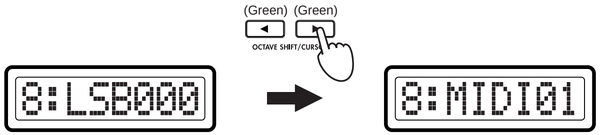
3 Use the main encoder or the pads to input the "MSB" value. The range is **0–127**. "MSB" stands for "Most Significant Byte."

4 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "LSB."



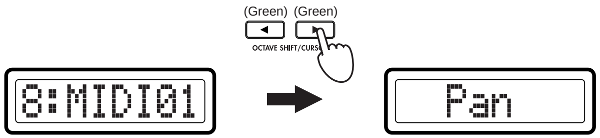
5 Use the main encoder or the pads to input the “LSB” value. The range is **0–127**.

6 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to “MIDI Channel” (specify the MIDI channel).



7 Use the main encoder or the pads to select the MIDI channel on which the assigned MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 “About the trigger pad functions–Input numerical values”)

8 Press the OCTAVE SHIFT / CURSOR [►] to proceed to “Name,” where you can specify a name for the encoder.



9 Specify the desired name for the assignment. In Play mode, the name you specify is shown in the sub-display. For the procedure, see “Inputting a name” (☞p.22).

10 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

Inputting a name

In Setting mode you can freely assign a name to the parameter you assigned to an encoder or slider. Also, in Scene mode you can freely assign a name to the scene you’ve assigned.

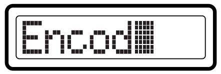
Available characters

You can input the following characters.

(Blank)
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
1 2 3 4 5 6 7 8 9 0
. , ' " - / & : ; = + * # % _ ^ @ ! ? | $ ¥ ( ) [ ] { } < >

Moving the cursor

A cursor is shown in the main display. If the cursor is located on a character, that character will blink. Use the OCTAVE SHIFT / CURSOR [◄][►] keys to move the cursor.



Inputting text

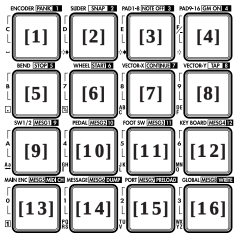
There are three ways to input text; using the main encoder, using the trigger pads, or using the encoders or sliders. These three input methods are explained below.

■ Using the main encoder to input text

Turn the main encoder to choose characters in the order of (blank), A–Z, a–z, 1–9, 0, and symbols. Move the cursor to the position at which you want to input a character, and use the main encoder to choose a character.

■ Using the trigger pads to input text

An alphanumeric character, symbol, or blank is assigned to each pad. Insert (insert a blank at the cursor location), Delete (delete the character at the cursor location and tighten up the subsequent characters), and Clear (erase the character at the cursor location) functions are also provided. The selected character will alternate each time you strike a pad [5]–[8] or [10]–[16]. Move the cursor to the position at which you want to input a character, and use the trigger pads to input or edit characters.



[1] Blank
[2] Insert
[3] Delete
[4] Clear
[5] . , ' " - / & : ; = + * #
[6] % _ ^ @ ! ? | $ ¥ ( ) [ ] { } < >
[7] a b c A B C
[8] d e f D E F
[9] Switches between uppercase and lowercase.
[10] g h i G H I
[11] j k l J K L
[12] m n o M N O
[13] 0 1 2 3 4 5 6 7 8 9
[14] p q r s P Q R S
[15] t u v T U V
[16] w x y z W X Y Z

■ Using the encoders and sliders to input text

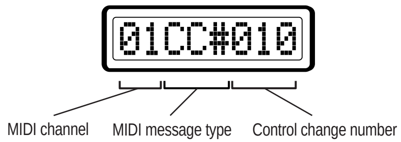
Regardless of the cursor location, you can use the sliders and encoders to input the characters shown in the display. Use slider 1 or encoder 1 to input the first character (counting from the left edge) of the display. Use slider 2 or encoder 2 to input the second character of the display. In this way, sliders 1–8 or encoders 1–8 will edit the eight characters shown in the display.
However, you'll need to use sliders 1–8 to input the name of a parameter assigned to an encoder. Likewise, you'll need to use encoders 1–8 to input the name of a parameter assigned to a slider.

Quick-assign for control changes

In Play mode, there's a shortcut for assigning a new control change message to an encoder (or slider if making a slider assignment). This method is valid only for an encoder or slider which is already assigned to a control change message.

You cannot use this method for an encoder or slider to which you have assigned NRPN or RPN.

1. In Play mode, hold down the [SETTING] key and turn the desired encoder (or slider if making a slider assignment) to select a new control change message.
   The sub-display will show the new assignment for the encoder or slider.



2. The new control change assignment will be updated when you release the [SETTING] key or operate a different controller. If you decide to cancel, press the [EXIT] key before you release the [SETTING] key.

note The MIDI channel will still be set to the "MIDI Channel" specified in the Encoder assignment Slider assignment page.

If you want to keep the changes you've made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see "Scene mode–[16] WRITE" (☞p.55).

[2] SLIDER (Slider assignment)

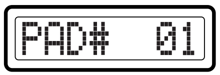
In the Slider assignment page, you can assign MIDI messages to sliders and specify the MIDI channel on which the messages will be transmitted, etc. You can assign a control change (CC#), RPN, or NRPN message to each slider.

1 Hold down the [SETTING] key and press pad [2].
You will be in the Slider assignment page, and the [SETTING] key and pad [2] will light. The main display indicates “Slider Select” (select the slider to assign). The messages you can assign to a slider and the assignment procedure are the same as for an encoder. For details, refer to “Encoder assignment” (☞p.20).
You can use the Quick Assign procedure for sliders as well. For details, refer to “Quick-assign for control changes” in “Encoder assignment.”

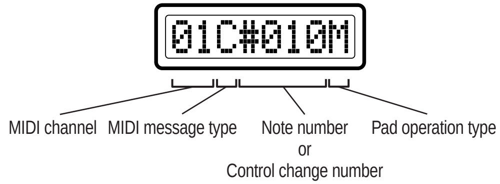
[3] PAD 1–8 (PAD 1–8 assignment)

PAD 1–8 assignment lets you assign MIDI messages to pads 1 through 8, and specify the channels on which these messages will be transmitted.
You can assign a note message or a control change (CC#) to each pad.
If you assign a control change, the message will be transmitted with a value of either 0 or 127.
Pad velocity settings are maintained separately for each scene. As the pad velocity type, you can choose either to transmit a velocity value that corresponds to the force with which you strike the pad, or to transmit a fixed value regardless of your striking force.

1 Hold down the [SETTING] key and press pad [3].
Now you can make pad [1]–[8] assignments. The [SETTING] key and pads [1] through [8] will light / blink. The main display will indicate “PAD# 01” (select the pad that you want to assign).

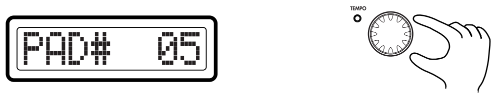


Sub-displays 1 through 8 will show the MIDI transmit channel, MIDI message, and pad transmission setting for each pad.



note For example if you operate the fifth encoder or slider, PAD#5 will be selected and the main display will indicate “PAD# 05”.

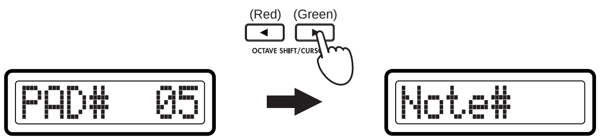
2 Use the main encoder or the pads to select the pad that you want to assign. To make your selection using the pads, simply press the desired pad.
The pad selected for assignment will blink.



note If both SW1 and 2 are lit, you can also use these switches to select a pad to assign.

note In the following pages where you specify the MIDI message type and note number or control change number, you can use the correspondingly-numbered encoder or slider to select a parameter or edit a value. It’s convenient to use the slider to make large changes in a value, and use the encoder to make fine adjustments.

3 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to “Message Select” (select the MIDI message).



4 Use the main encoder to select the type of MIDI message.

NoAssign

No MIDI message will be assigned to the selected pad. If you select **NoAssign**, the setting will be updated when you press the [ENTER] key (blinking). (☞**Step 14**)

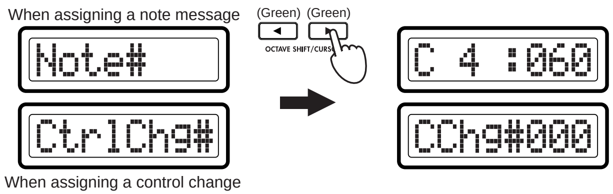
Note# (Note message)

Assigns a note message to the selected pad.

CtrlChg# (Control Change)

A control change message will be assigned to the switch. If you selected CtrlChg#, select the control change number. (☞p.30 **"Assigning a control change"**)

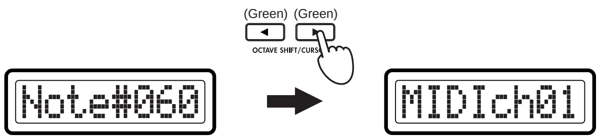
5 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "Note Select" (specify a note number) or "Control Change Select" (specify a control change number).



6 Use the main encoder or the pads to select a note number or control change number. The range is **0–127**. (☞p.4 "About the trigger pad functions–Input numerical values," ☞p.56 "Available MIDI messages")

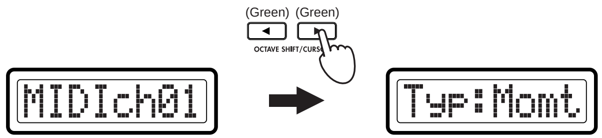
note If you're assigning a note message, press a note on the keyboard to assign that note number to the current pad.

7 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "MIDI Channel" (specify the MIDI channel).



8 Use the main encoder or the pads to select the MIDI transmit channel. The range is **1–16 (ch)**. (☞p.4 "About the trigger pad functions–Input numerical values")

9 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "PAD Type" (select the type of pad operation).



10 Use the main encoder to specify the type of operation that occurs when you press the pad.

Momt (Momentary)

If a control change is assigned to the pad, pressing the pad will transmit the assigned control change message with a value of 127, and releasing it will transmit a value of 0.

If a note message is assigned to the pad, pressing the pad will transmit a note-on, and releasing it will transmit a note-off.

Tgle (Toggle)

If a control change is assigned to the pad, the assigned MIDI message will be transmitted alternately with a value of 127 and a value of 0 each time you press the pad.

If a note message is assigned to the pad, a note-on message and a note-off message will be transmitted alternately each time you press the pad.

11 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "Velocity Type" (select the type of velocity).

12 Use the main encoder to select the velocity type.

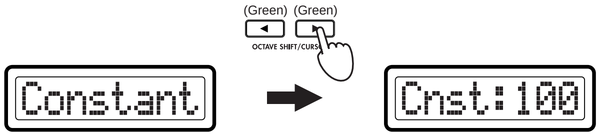
VelSens (Velocity Sens)

The transmitted velocity value will depend on how strongly you strike the pad. (If you choose VelSens, press the [ENTER] key (blinking) to save the setting.)

Constant

The fixed velocity value you specify will be transmitted when you strike the pad.

13 If you set “Velocity Type” to **Constant**, press the OCTAVE SHIFT/ CURSOR [▶] key to move to “Constant” (the velocity value setting), and use the main encoder to specify the desired velocity value in a range of **1–127**.



note This constant velocity setting applies to all pads 1–8 and 9–16.

14 Press the [ENTER] key.
The settings will be updated and you will return to Play mode.
In Play mode, pads to which a control change is assigned will light green, and pads to which a note message is assigned or for which NoAssign is selected will be dark.

If you want to keep the new assignments, you must save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be lost. (☞p.55 “Scene mode–[16] WRITE”)

[4] PAD 9–16 (PAD 9–16 assignment)

PAD 9–16 assignment lets you assign MIDI messages to pads 9 through 16, and specify the channels on which these messages will be transmitted.

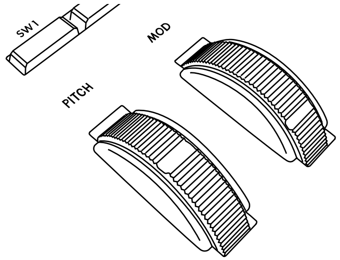
1 Hold down the [SETTING] key and press pad [4].
Now you can make pad 9–16 assignments.The [SETTING] key and pads [9] through [16] will light or blink. The main display indicates “PAD# 09” (select the pad to assign).
The assignments that can be made for pads 9–16 and the procedure are the same as for PAD 1–8. For details, see “PAD 1–8 assignment” (☞p.24).

[5] Pitch Bend (Pitch Bend assignment)

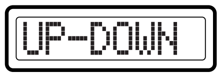
Here you can assign the MIDI messages that will be transmitted when you move the Pitch Bend controller up or down, and specify the MIDI channel on which these messages are transmitted. If desired, you can assign separate MIDI messages to the upward and downward ranges of movement.

Assigning a single MIDI message to the full range (up/ down)

Here’s how to assign a single MIDI message to be transmitted by the full range (up and down) of the Pitch Bend controller. You can assign pitch bend, master balance, aftertouch, velocity, or a control change (CC#).



1 Hold down the [SETTING] key and press pad [5].
Now you can specify the Pitch Bend assignment. The [SETTING] key and pad [5] will light. The main display indicates “Assignment Select.”
“Assignment Select” is where you choose whether the full range of movement (up and down) will transmit a single MIDI message, or whether upward and downward movement will transmit separate MIDI messages.

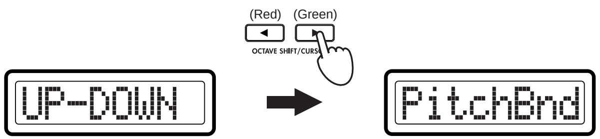


2 Use the main encoder to specify the Pitch Bend assignment selection.
For this example, choose **UP-DOWN**.

UP-DOWN
Assign a single MIDI message to the full range of movement (up and down).

UP/DOWN
Assign separate MIDI messages to the upward and downward ranges of movement. (☞p.28 "Assigning separate MIDI messages to the up/down ranges")

3 Press the OCTAVE SHIFT/CURSOR [►] key to proceed to "Message Select" (select the MIDI message).



4 Use the main encoder to select the MIDI message you want to assign.

NoAssign
No MIDI message will be assigned to up/down movement of the Pitch Bend controller. If you choose **NoAssign**, continue by pressing the [ENTER] key to apply the setting. (☞**Step 7**)

PitchBnd (Pitch Bend)
Assign pitch bend. If you choose PitchBnd, continue by pressing the OCTAVE SHIFT/CURSOR [►] key to move to "MIDI Channel" (MIDI channel setting). (☞**Step 5**)
In Play mode when you operate the Pitch Bend controller, the main display indicates "PBend---".

MastrBal (Master Balance)
Assign master balance. Master Balance messages **[F0, 7F, 7F, 04, 02, vv, mm, F7]** (device ID fixed at 7Fh) will be transmitted. If you choose **MastrBal**, continue by pressing the [ENTER] key to apply the setting. (☞**Step 7**)
In Play mode when you operate the Pitch Bend controller, the main display indicates "MstBl---".

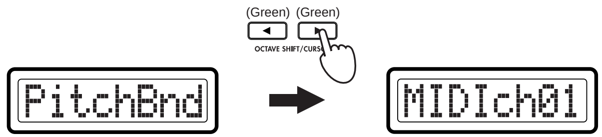
A.Touch (AfterTouch)
Assign keyboard aftertouch. If you choose **A.Touch**, continue by selecting the type of aftertouch. (☞p.29 **"Assigning aftertouch"**)

Velocity
Assign keyboard or pad velocity. If you choose **Velocity**, continue by selecting the velocity type. (☞p.29 **"Assigning velocity"**)

⚠ If you assign Velocity, settings such as Key Curve are ignored.

CtrlChg# (Control Change)
A control change message will be assigned to the switch. If you selected **CtrlChg#**, select the control change number. (☞p.30 **"Assigning a control change"**)

5 Press the OCTAVE SHIFT/CURSOR [►] key to proceed to "MIDI Channel" (specify the MIDI channel).



6 Use the main encoder or the pads to select the MIDI channel on which the MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 "About the trigger pad functions–Input numerical values")

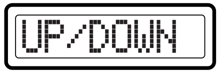
7 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

⚠ If you want to keep the changes you've made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see "Scene mode–[16] WRITE" (☞p.55).

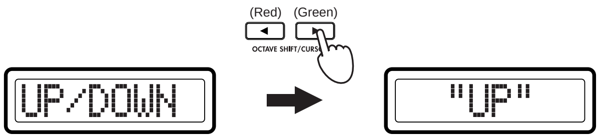
Assigning separate MIDI messages to the up / down ranges

Here's how to assign separate MIDI messages to the up and down ranges of the Pitch Bend controller. You can assign aftertouch, velocity, or a control change (CC#).

1 Hold down the [SETTING] key and press pad [5] to enter Pitch Bend assignment, and choose **UP/DOWN** as the "Assignment Select" setting.



2 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "UP / DOWN Select" (select the range of movement for which you want to make an assignment).

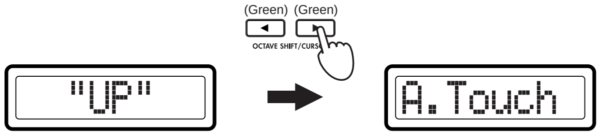


3 Use the main encoder to select whether you want to assign the up or down range of movement.

UP
Make an assignment for the up range.

DOWN
Make an assignment for the down range.

4 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "Message Select" (select the MIDI message).



5 Use the main encoder to select the MIDI message you want to assign.

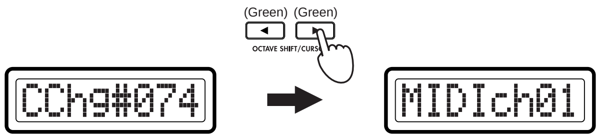
NoAssign
No MIDI message will be assigned to the range you are specifying. If you choose **NoAssign**, continue by pressing the [ENTER] key to apply the setting. (☞**Step 8**)

A.Touch (AfterTouch)
Assign keyboard aftertouch. If you choose **A.Touch**, continue by selecting the type of aftertouch. (☞p.29 **"Assigning aftertouch"**)

Velocity
Assign keyboard or pad velocity. If you choose **Velocity**, continue by selecting the velocity type. (☞p.29 **"Assigning velocity"**)

CtrlChg# (Control Change)
A control change message will be assigned to the switch. If you selected **CtrlChg#**, select the control change number. (☞p.30 **"Assigning a control change"**)

6 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "MIDI Channel" (specify the MIDI channel).



7 Use the main encoder or the pads to select the MIDI channel on which the assigned MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 "About the trigger pad functions–Input numerical values")

8 Press the OCTAVE SHIFT / CURSOR [◀] key to return to “UP / DOWN Select,” and make settings for the other range of Pitch Bend controller movement. (☞**Steps 3–7**)

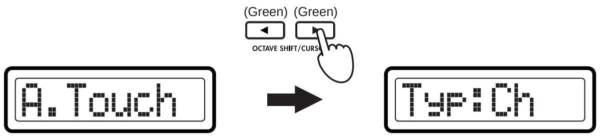
9 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

■ *Assigning aftertouch*

If you chose **A.Touch** for “Message Select,” set “Pressure Type” to select the type of aftertouch, and then proceed to “MIDI Channel” (specify the MIDI channel).

1 Press the OCTAVE SHIFT / CURSOR [▶] key to move to “Pressure Type” (select the type of aftertouch).



2 Use the main encoder to select the type of aftertouch.

Ch (Channel Aftertouch)
Channel aftertouch applies to all keys being played.
In Play mode when you operate the Pitch Bend (or Mod Wheel) controller, the main display will indicate “ChAft---”.

Last (Polyphonic key pressure)
Polyphonic key pressure applies aftertouch only to the last-played key if more than one key is being played.
In Play mode when you operate the Pitch Bend (or Mod Wheel) controller, the main display will indicate “PyAft---”.

3 Press the OCTAVE SHIFT / CURSOR [▶] key to proceed to “MIDI Channel” (specify the MIDI channel).

4 Press the OCTAVE SHIFT / CURSOR [◀] key to return to “UP / DOWN Select,” and make the desired assignment for the other range of movement. (☞p.28 “Assigning separate MIDI messages to the up / down ranges” **steps 3–7**)

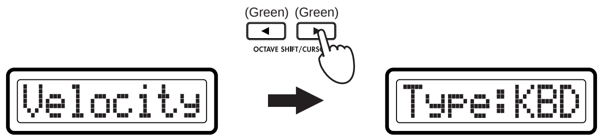
5 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

■ *Assigning velocity*

If you chose **Velocity** for “Message Select,” use “Velocity Type” to specify the velocity type, and then apply the setting.

1 Press the OCTAVE SHIFT / CURSOR [▶] key to move to “Velocity Type” (select the velocity type).



2 Use the main encoder to select the type of velocity.
This setting takes priority over the velocity-related settings you make in PAD 1–8, PAD9–16, and Keyboard Setting.
In Play mode, the position of the Pitch Bend (or Mod Wheel) controller will determine the velocity values that are transmitted. If the controller specifies a velocity value of 0, the display will indicate “KbdOnVel” or “PadOnVel,” and the velocity produced by the keyboard or pad will be transmitted.

KBD (Keyboard)
The controller will specify the keyboard velocity.
In Play mode, the main display will indicate “KyVel---” when you operate the Pitch Bend (or Mod Wheel) controller.

PAD (Pad)
The controller will specify the pad velocity. In this case, the velocity values being controlled by the Pitch Bend (or Mod Wheel) controller are for the note messages transmitted on the MIDI channel specified for the pads.
In Play mode, the main display will indicate “PdVel---” when you operate the Pitch Bend (or Mod Wheel) controller.

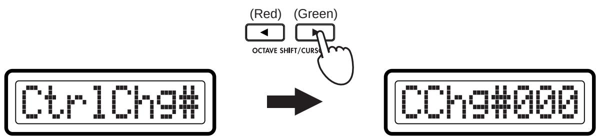
3 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

■ *Assigning a control change*

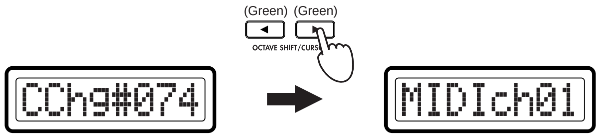
If you chose **CtrlChg#** for “Message Select,” use “Control Change Select” to select a control change, and then proceed to “MIDI Channel” (MIDI channel setting).

1 Press the OCTAVE SHIFT / CURSOR [►] key to move to “Control Change Select” (select the control change number).



2 Use the main encoder or pads to select the desired control change number in a range of **0–127**.

3 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to “MIDI Channel” (specify the MIDI channel).



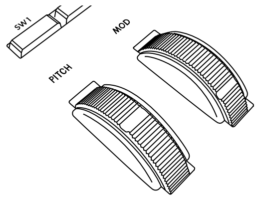
4 Use the main encoder or the pads to select the MIDI transmit channel. The range is **1–16 (ch)**.

5 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

[6] MOD (MOD Wheel assignment)

Here you can select a message to assign to the Mod Wheel controller, and select the MIDI channel on which the messages will be transmitted.
You can assign aftertouch, velocity, or control change (CC#) messages to the Mod Wheel controller.



1 Hold down the [SETTING] key and press pad [6].
Now you can specify the Mod Wheel assignment, and the [SETTING] key and pad [6] will light. The main display indicates “Assignment Select” (select the assignment).

2 Use the main encoder to select the MIDI message you want to assign.

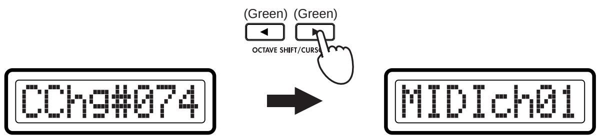
NoAssign
No MIDI message will be assigned to the Mod Wheel controller. If you select **NoAssign**, press the [ENTER] key to apply the setting. (☞**Step 5**)

A.Touch (AfterTouch)
Assign keyboard aftertouch. If you choose **A.Touch**, continue by selecting the type of aftertouch. (☞p.29 **“Assigning aftertouch”**)

Velocity
Assign keyboard or pad velocity. If you choose **Velocity**, continue by selecting the velocity type. (☞p.29 **“Assigning velocity”**)

CtrlChg# (Control Change)
A control change message will be assigned to the switch. If you selected CtrlChg#, select the control change number. (☞p.30 **“Assigning a control change”**)

3 Press the OCTAVE SHIFT/CURSOR [►] key to proceed to “MIDI Channel” (specify the MIDI channel).



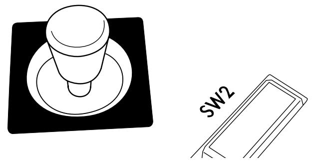
4 Use the main encoder or the pads to select the MIDI channel on which the MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 “About the trigger pad functions–Input numerical values”)

5 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

[7] VECTOR-X (Vector-X assignment)

Here you can assign a MIDI message to the X-axis of the vector joystick. You can assign a control change (CC#) message to the X-axis of the vector joystick.



1 Hold down the [SETTING] key and press pad [7].
Now you can specify the Vector-X assignment, and the [SETTING] key and pad [7] will light. The main display indicates “Message Select” (select the MIDI message).

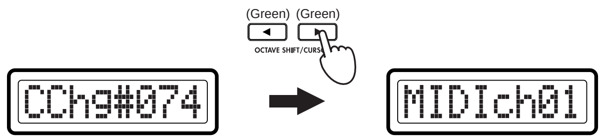
2 Use the main encoder to select the MIDI message you want to assign.

NoAssign
No MIDI message will be assigned to the X-axis of the vector joystick. If you choose NoAssign, press the [ENTER] key to apply the setting. (☞**Step 6**)

CChg#000–127 (Control Change)
A control change message will be assigned to the switch.

3 Use the main encoder or pads to select the desired control change number in a range of **0–127**.

4 Press the OCTAVE SHIFT/CURSOR [►] key to proceed to “MIDI Channel” (specify the MIDI channel).



5 Use the main encoder or the pads to select the MIDI channel on which the assigned MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 “About the trigger pad functions–Input numerical values”)

6 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

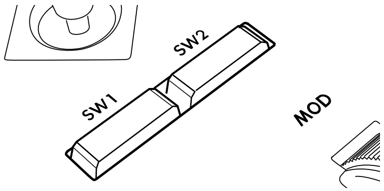
[8] VECTOR-Y (Vector-Y assignment)

Here you can assign a MIDI message to the Y-axis of the vector joystick.
In the same way as for the X-axis, you can assign a control change (CC#) message to the Y-axis of the vector joystick.

1 Hold down the [SETTING] key and press pad [8].
Now you can specify the Vector-Y assignment, and the [SETTING] key and pad [8] will light. The main display indicates “Message Select” (select the MIDI message). The procedure for assigning the Y-axis of the vector joystick is the same as for the X-axis. For details, refer to “Vector-X assignment” (☞p.31)

[9] SW1 / SW2 (SW1 / SW2 assignment)

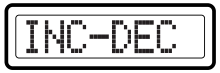
Here you can assign MIDI messages to switches 1 and 2, and specify the MIDI transmit channel.
Switches 1 and 2 can be used either in one-parameter mode (Inc / Dec operation) or in two-parameter mode (separate assignments for each switch).



Using the switches in one-parameter mode

If you choose one-parameter mode, either control changes (CC#) or program changes can be assigned to switches 1 and 2.

1 Hold down the [SETTING] key and press pad [9].
The [SETTING] key and pad [9] will light; now you can make SW1 / SW2 assignments. The main display indicates “Assignment Select” (select the assignment method).
In “Assignment Select” you can choose either one-parameter assignment mode or two-parameter assignment mode.

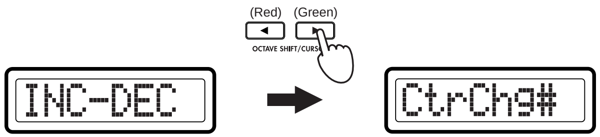


2 Use the main encoder to select the assignment mode for switches 1 and 2.
Here we will select **INC-DEC**.

INC-DEC (One-parameter mode)
Assign a single MIDI message to switches 1 and 2.

SW1 / SW2 (Two-parameter mode)
Assign separate MIDI messages to switch 1 and switch 2.

3 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to “Message Select” (select the MIDI message).



4 Use the main encoder to select the type of MIDI message.

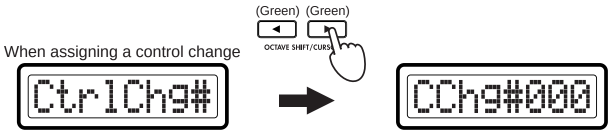
NoAssign
No MIDI message will be assigned to switches 1 and 2. If you choose **NoAssign**, press the [ENTER] key (blinking) to apply the setting. (☞**Step 8**)

CtrlChg# (Control Change)
A control change message will be assigned to the switch.

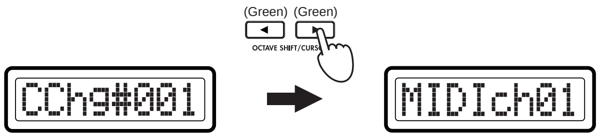
ProgChg (Program Change)
Program change messages will be assigned to switches 1 / 2. If you choose ProgChg, press the OCTAVE SHIFT / CURSOR [▶] key to proceed to “MIDI Channel” (MIDI channel setting). (☞**Step 6**)

5 Press the OCTAVE SHIFT / CURSOR [▶] key to move to “Control Change Select” (select the control change number).

When assigning a control change



6 Press the OCTAVE SHIFT / CURSOR [▶] key to proceed to “MIDI Channel” (specify the MIDI channel).



7 Use the main encoder or the pads to select the MIDI channel on which the MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 “About the trigger pad functions–Input numerical values”)

8 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

note Switches 1 / 2 will increment or decrement the transmitted value in a range of 0–127 for control changes, and in a range of 1–128 for program changes.

Using the switches in two-parameter mode

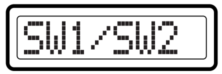
If you choose two-parameter mode, you can assign damper, sostenuto, soft pedal, portamento, or control change (CC#) messages to the switches. The assignable messages and procedure are the same for either switch 1 or switch 2.

1 Hold down the [SETTING] key and press pad [9].
Now you can make SW1 / SW2 assignments, and the [SETTING] key and pad [9] will light. The main display indicates “Assignment Select” (select the assignment method).
In “Assignment Select” you can choose either one-parameter assignment mode or two-parameter assignment mode.

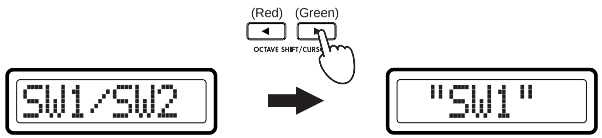
2 Use the main encoder to select the assignment mode for switches 1 and 2.
Here we will select **SW1/SW2**.

INC-DEC (One-parameter mode)
Assign a single MIDI message to switches 1 and 2.

SW1 / SW2 (Two-parameter mode)
Assign separate MIDI messages to switch 1 and switch 2.



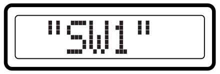
3 Press the OCTAVE SHIFT / CURSOR [▶] key to select the switch you want to assign.



4 Use the main encoder to select the switch you want to assign.

"SW1"

"SW2"



5 Use the main encoder to select the MIDI message you want to assign.

NoAssign
No MIDI message will be assigned to the switch. If you choose **NoAssign**, press the [ENTER] key (blinking) to apply the setting. (☞**Step 9**)

Damper
Damper (CC#64) messages will be assigned to the switch.
Pressing the switch transmits a value of 127, and releasing it transmits a value of 0.
In Play mode, the main display will indicate "Dampr--" when you operate the switch.

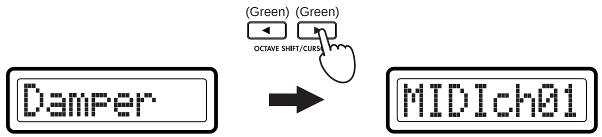
Sostenut (Sostenuto)
Sostenuto (CC#66) messages will be assigned to the switch.
Pressing the switch transmits a value of 127, and releasing it transmits a value of 0.
In Play mode, the main display will indicate "Sostn--" when you operate the switch.

Soft (Soft Pedal)
Soft pedal (CC#67) messages will be assigned to the switch.
Pressing the switch transmits a value of 127, and releasing it transmits a value of 0.
In Play mode, the main display will indicate "Soft--" when you operate the switch.

Portmnt (Portamento)
Portamento (CC#65) messages will be assigned to the switch.
Pressing the switch transmits a value of 127, and releasing it transmits a value of 0.
In Play mode, the main display will indicate "Porta--" when you operate the switch.

CtrlChg# (Control Change)
A control change message will be assigned to the switch. If you choose **CtrlChg#**, press the OCTAVE SHIFT / CURSOR [►] key to proceed to "Control Change Select." (☞p.37 **"Assigning a control change"**)

6 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "MIDI Channel" (specify the MIDI channel).



7 Use the main encoder or the pads to select the MIDI channel on which the MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 "About the trigger pad functions–Input numerical values")

8 Press the OCTAVE SHIFT / CURSOR [◄] key to return to "SW1 / SW2 Select," and make settings in the same way for the other switch. (☞**Steps 4–7**)

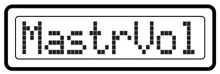
9 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

⚠ If you want to keep the changes you've made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see "Scene mode–[16] WRITE" (☞p.55).

[10] PEDAL (Pedal assignment)

Here you can assign a MIDI message to a foot controller or expression pedal connected to the rear panel PEDAL jack, and specify the MIDI transmission channel.
You can assign master volume, foot pedal, portamento time, volume, pan, expression, or control change (CC#) messages to the pedal.

1 Hold down the [SETTING] key and press pad [10].
Now you can make pedal assignments, and the [SETTING] key and pad [10] will light. The main display indicates “Message Select” (select the MIDI message).



2 Use the main encoder to select the MIDI message you want to assign.

NoAssign
No MIDI message will be assigned to the switch. If you choose **NoAssign**, press the [ENTER] key (blinking) to apply the setting. (☞**Step 5**)

MastrVol (Master Volume)
Assign master Volume. Master Volume messages **[F0, 7F, 7F, 04, 01, vv, mm, F7]** (device ID fixed at 7Fh) will be transmitted. In Play mode, the main display will indicate “MstVl--” when you operate the pedal. If you choose MastrVol, press the [ENTER] key to apply the setting. (☞**Step 5**)

FootPdl (Foot Pedal)
Foot pedal (CC#04) messages will be assigned to the pedal.
Fully advancing the pedal will transmit a value of 127, and fully returning it will transmit a value of 0. In Play mode, the main display will indicate “FootP--” when you operate the pedal.

PortaTm (Portamento Time)
Portamento (CC#05) messages will be assigned to the pedal.
Fully advancing the pedal will transmit a value of 127, and fully returning it will transmit a value of 0. In Play mode, the main display will indicate “PTime--” when you operate the pedal.

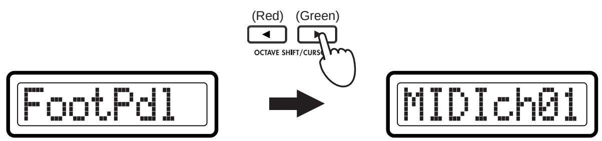
Volume (Volume)
Volume (CC#07) messages will be assigned to the pedal.
Fully advancing the pedal will transmit a value of 127, and fully returning it will transmit a value of 0. In Play mode, the main display will indicate “Volum--” when you operate the pedal.

Pan (Panpot)
Panpot (CC#10) messages will be assigned to the pedal.
Fully advancing the pedal will transmit a value of 127, and fully returning it will transmit a value of 0. In Play mode, the main display will indicate “Pan--” when you operate the pedal.

Express (Expression)
Expression (CC#11) messages will be assigned to the pedal.
Fully advancing the pedal will transmit a value of 127, and fully returning it will transmit a value of 0. In Play mode, the main display will indicate “Exprs--” when you operate the pedal.

CtrlChg# (Control Change)
A control change message will be assigned to the pedal. If you choose **CtrlChg#**, press the OCTAVE SHIFT / CURSOR [►] key to proceed to “Control Change Select.” (☞p.36 **“Assigning a control change”**)

3 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to “MIDI Channel” (specify the MIDI channel).



4 Use the main encoder or the pads to select the MIDI channel on which the MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 “About the trigger pad functions–Input numerical values”)

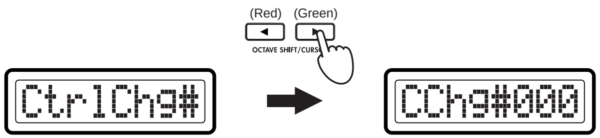
5 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

■ *Assigning a control change*

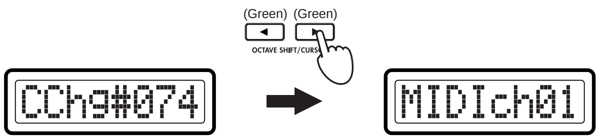
If you chose **CtrlChg#** for “Message Select,” you’ll need to use “Control Change Select” to select the control change, and then proceed to “MIDI Channel” (select the MIDI channel).

1 Press the OCTAVE SHIFT / CURSOR [►] key to move to “Control Change Select” (select the control change number).



2 Use the main encoder or pads to select the desired control change number in a range of **0–127**.

3 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to “MIDI Channel” (specify the MIDI channel).



4 Use the main encoder or the pads to select the MIDI transmit channel. The range is **1–16 (ch)**.

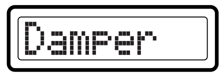
5 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

[11] FOOT SW (Foot SW assignment)

Here you can assign a MIDI message to a foot switch or damper pedal connected to the rear panel SWITCH jack, and specify the MIDI transmission channel.
You can assign damper, sostenuto, soft pedal, portamento, or control change (CC#) messages to the foot switch.

1 Hold down the [SETTING] key and press pad [11].
Now you can make pedal assignments, and the [SETTING] key and pad [11] will light. The main display indicates “Message Select” (select the MIDI message).



2 Use the main encoder to select the MIDI message you want to assign.

NoAssign
No MIDI message will be assigned to the foot switch. If you choose **NoAssign**, press the [ENTER] key (blinking) to apply the setting. (☞**Step 5**)

Damper
Damper (CC#64) messages will be assigned to the foot switch.
Pressing the foot switch transmits a value of 127, and releasing it transmits a value of 0.
In Play mode, the main display will indicate “Dampr--” when you operate the foot switch.

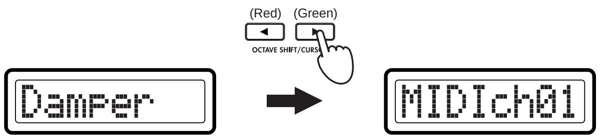
Sostenut (Sostenuto)
Sostenuto (CC#66) messages will be assigned to the foot switch.
Pressing the foot switch transmits a value of 127, and releasing it transmits a value of 0.
In Play mode, the main display will indicate “Sostn--” when you operate the foot switch.

Soft (Soft Pedal)
Soft pedal (CC#67) messages will be assigned to the pedal.
Pressing the foot switch transmits a value of 127, and releasing it transmits a value of 0.
In Play mode, the main display will indicate “Soft--” when you operate the foot switch.

Portmnt (Portamento)
Portamento (CC#65) messages will be assigned to the pedal.
Pressing the foot switch transmits a value of 127, and releasing it transmits a value of 0.
In Play mode, the main display will indicate “Porta--” when you operate the foot switch.

CtrlChg# (Control Change)
A control change message will be assigned to the foot switch. If you choose **CtrlChg#**, press the OCTAVE SHIFT / CURSOR [►] key to proceed to “Control Change Select.” (☞p.37 **“Assigning a control change”**)

3 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to “MIDI Channel” (specify the MIDI channel).



4 Use the main encoder or the pads to select the MIDI channel on which the MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 “About the trigger pad functions–Input numerical values”)

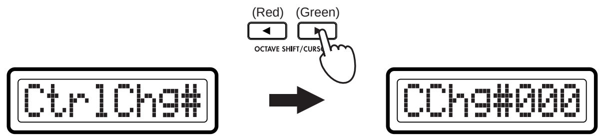
5 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

■ Assigning a control change

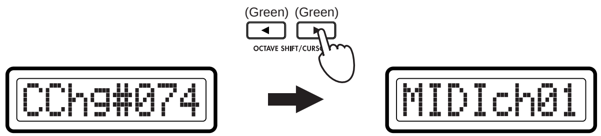
If you chose **CtrlChg#** for “Message Select,” you’ll also need to make settings for “Control Change Select,” “MIDI Channel,” and “Pedal Type.”

1 Choose **CtrlChg#** for “Message Select,” and then press the OCTAVE SHIFT / CURSOR [►] key to move to “Control Change Select” (select the control change number).



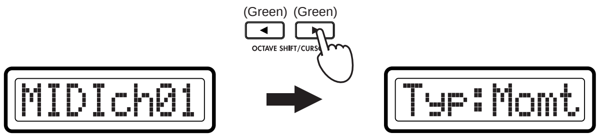
2 Use the main encoder or pads to select the desired control change number in a range of **0–127**. (☞p.4 “About the trigger pad functions–Input numerical values”)

3 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to “MIDI Channel” (specify the MIDI channel).



4 Use the main encoder or the pads to select the MIDI channel on which the MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 “About the trigger pad functions–Input numerical values”)

5 Press the OCTAVE SHIFT / CURSOR [►] key to move to “Pedal Type” (select the type of pedal operation).



6 Use the main encoder to select the type of pedal operation.

Momt (Momentary)
The assigned MIDI message will be transmitted with a value of 127 when you press the pedal, and with a value of 0 when you release the pedal.

Tgle (Toggle)
The assigned MIDI message will alternately be transmitted with a value of 127 and a value of 0 each time you press the pedal.

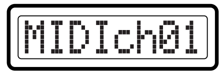
7 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

[12] KEYBOARD (Keyboard setting)

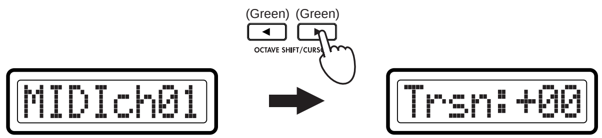
Here you can specify the MIDI channel, transposition, and velocity curve for the note messages that are transmitted when you play the keyboard. The velocity value of the note message transmitted when you strike a key can be adjusted by a velocity curve, or can be a fixed value. You can choose one of eight velocity curves or a fixed velocity value.

1 Hold down the [SETTING] key and press pad [12].
Now you can make Keyboard settings, and the [SETTING] key and pad [12] will light. The main sensitivity indicates “MIDI Channel” (MIDI channel setting).



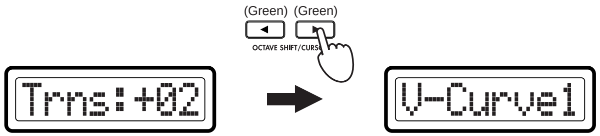
2 Use the main encoder or the pads to select the MIDI channel on which the MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 “About the trigger pad functions–Input numerical values”)

3 Press the OCTAVE SHIFT / CURSOR [►] key to move to “Transpose” (transpose setting).
The transpose setting lets you shift the pitch of the keyboard in semitone steps.



4 Use the main encoder or the pads to set the keyboard transpose setting. The range is **–24 – +24** (±2 octaves). (☞p.4 “About the trigger pad functions–Input numerical values”)

5 Press the OCTAVE SHIFT / CURSOR [►] key to move to “Velocity Type” (velocity type setting).



6 Use the main encoder to select the velocity curve.
If you select a curve, the setting will be saved when you press the [ENTER] key (blinking). (☞**Step 8**)

V-Curve1 – V-Curve3 (Velocity Curve 1–3)
These curves begin to produce higher velocities when you play strongly. V-Curve3 will tend to produce higher velocities.

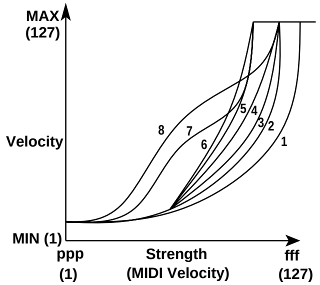
V-Curve4, V-Curve5 (Velocity Curve 4, 5)
These are typical curves. V-Curve5 produces high velocity values even when played less strongly.

V-Curve6 (Velocity Curve 6)
This curve produces high velocity values even when not played very strongly.

V-Curve7 (Velocity Curve 7)
This curve produces little change for medium-strength playing, creating a more consistent effect.

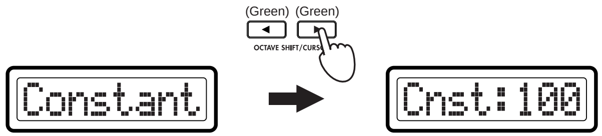
V-Curve8 (Velocity Curve 8)
This curve is slightly more flat than curve 7, and produces little change for medium-strength playing, creating a more consistent effect.

note Since curves 7 and 8 produce less change for medium-strength playing, they are suitable when you do not need velocity or when you want to make the note strength consistent. However, since there will be greater change for softly-played notes, these curves can be more difficult to control. Choose a curve that is suitable for your playing strength and the result that you want to obtain.



Constant
Notes will be transmitted with the specified velocity value.

7 If you select **Constant** as the “Velocity Type,” press the OCTAVE SHIFT / CURSOR [►] key to proceed to “Cnst (Constant)” and use the main encoder to set the velocity value. The range is **1–127**.



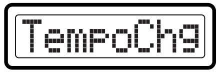
8 Press the [ENTER] key.
The settings will be saved, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

[13] MAIN ENC (Main Encoder assignment)

Here you can assign a function to the main encoder.
Tempo change, program change, or program change with bank select can be assigned to the main encoder.

1 Hold down the [SETTING] key and press pad [13].
Now you can make Main Encoder settings, and the [SETTING] key and pad [13] will light. The main display indicates “Message Select” (select a MIDI message).



2 Use the main encoder to select the MIDI message you want to assign.

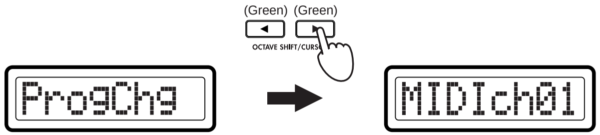
NoAssign
No MIDI message will be assigned to the main encoder. If you choose **NoAssign**, press the [ENTER] key (blinking) to apply the setting. (☞**Step 5**)

TempoChg (Tempo Change)
Tempo change will be assigned to the main encoder. If you choose TempoChg, press the [ENTER] key (blinking) to apply the setting. (☞**Step 5**)

ProgChg (Program Change)
Program change will be assigned to the main encoder.

PChg&BS (Program Change & Bank Select)
Program change with bank select will be assigned to the main encoder. By holding down the [SETTING] key while you turn the main encoder, you can select whether to edit the bank select MSB or LSB. If you choose **PChg&BS**, press the OCTAVE SHIFT / CURSOR [►] key to move to “Assigning Program Change and Bank Select.” (☞“Assigning Program Change and Bank Select”)

3 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to “MIDI Channel” (specify the MIDI channel).



4 Use the main encoder or the pads to select the MIDI channel on which the assigned MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 “About the trigger pad functions–Input numerical values”)

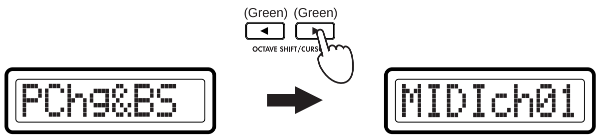
5 Press the [ENTER] key.
The setting will be updated, and you will return to Play mode.

If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

■ *Assigning Program Change and Bank Select*

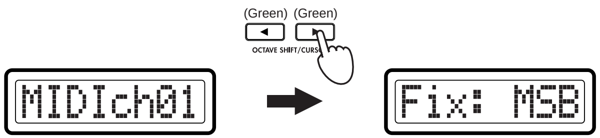
If you chose Program Change and Bank Select, proceed to “MIDI Channel” (set the MIDI channel).

1 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to “MIDI Channel” (specify the MIDI channel).



2 Use the main encoder or the pads to select the MIDI channel on which the MIDI message will be transmitted. The range is **1–16 (ch)**. (☞p.4 “About the trigger pad functions–Input numerical values”)

3 Press the OCTAVE SHIFT / CURSOR [►] key to move to "MSB / LSB Select" (select the MSB and LSB).
You can specify that either bank select MSB or LSB will vary when you hold down the [SETTING] key and turn the main encoder. The other byte (LSB or MSB) will have a fixed value. In this page you can choose which byte will have a fixed value.



4 Press the OCTAVE SHIFT / CURSOR [►] key and use the [VALUE] dial or pads to specify the value of the fixed Bank Select byte you chose. The range is **0–127**.

note You can also press the [HEX LOCK] key and enter the value in hexadecimal form.

5 Press the [ENTER] key.
The settings will be saved, and you will return to Play mode.

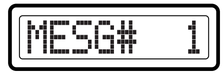
If you want to keep the changes you've made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see "Scene mode–[16] WRITE" (☞p.55).

[14] MESSAGE (Message setting)

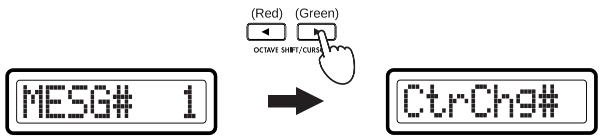
In the MESSAGE mode, you can create MIDI messages and assign them to pads 9 through 16. These messages will be transmitted when you press the pads (9 through 16) in MESSAGE mode.

1 Hold down the [SETTING] key and press pad [14].
Now you can make Message settings, and the [SETTING] key and pad [14] will light. The main display indicates "Message Select" (select a MIDI message).

2 Use the main encoder or directly press a pad 9–16 to select the pad for which you want to make settings. The selected pad will blink.



3 Press the OCTAVE SHIFT / CURSOR [►] key to move to "Message Select" (select a MIDI message).



4 Select the message you want to assign.

CtrlChg# (Control Change)
The specified control change message will be transmitted when you press the pad. You can specify a fixed value that will be transmitted each time you press the pad.

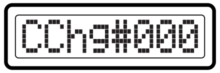
ProgChg (Program Change)
The specified program change message [Cn, mm] (n: channel, mm: program number) will be transmitted when you press the pad.

BankSel (Bank Select)
The specified bank select message [Bn, 00, mm], [Bn, 20, bb] will be transmitted when you press the pad. By specifying the MSB and LSB values you can address a total of 16,384 banks.

Free Mesg (Free Message)
The specified message will be transmitted when you press the pad. You can use this to assign and send more than one message.

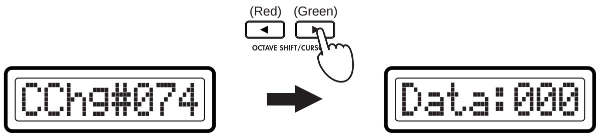
■ CtrlChg (Control Change message)

1 Use the main encoder or the pads to select the control change you want to transmit. The range is **0–127**. (☞p.4 "About the trigger pad functions–Input numerical values")



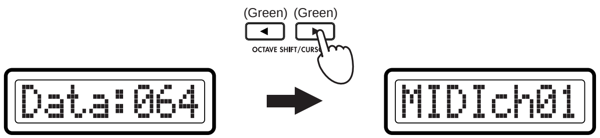
note The selected parameter or the edited value will blink in the display.

2 Press the OCTAVE SHIFT / CURSOR [►] key to move to "Data" (specify the value of the transmitted message).



3 Use the main encoder or the pads to specify the value of the message that will be transmitted. The range is **0–127**.

4 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "MIDI Channel" (specify the MIDI channel).



5 Use the main encoder or the pads to select the MIDI channel on which the control change message will be transmitted. The range is **1–16 (ch)**.

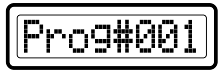
6 Press the [ENTER] key to apply the settings.

note If you decide to cancel, press the [EXIT] key to return to Play mode.

If you want to keep the changes you've made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see "Scene mode–[16] WRITE" (☞p.55).

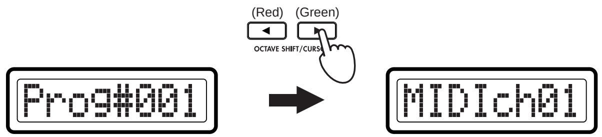
■ ProgChg (Program Change message)

1 Use the main encoder or the pads to input the program number you want to transmit. The range is **1–128**. (☞p.4 "About the trigger pad functions–Input numerical values")



note You can also press the [HEX LOCK] key and input the value in hexadecimal form.

2 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "MIDI Channel" (specify the MIDI channel).



3 Use the main encoder or the pads to select the MIDI channel on which the program change message will be transmitted. The range is **1–16 (ch)**. (☞p.4 "About the trigger pad functions–Input numerical values")

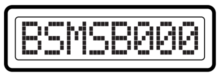
4 Press the [ENTER] key to apply the settings.

note If you decide to cancel, press the [EXIT] key to return to Play mode.

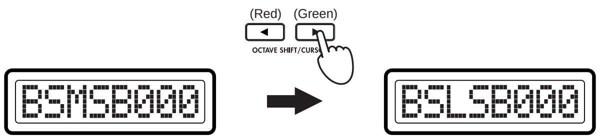
If you want to keep the changes you've made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see "Scene mode–[16] WRITE" (☞p.55).

■ BankSel (Bank Select message)

1 Use the main encoder or the pads to input the "MSB" value you want to transmit. The range is **0–127**. (☞p.4 "About the trigger pad functions–Input numerical values")

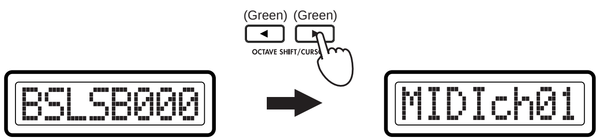


2 Press the OCTAVE SHIFT / CURSOR [►] key to move to "LSB" (specify the LSB value).



3 Use the main encoder or the pads to input the "LSB" value you want to transmit. The range is **0–127**.

4 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to "MIDI Channel" (specify the MIDI channel).



5 Use the main encoder or the pads to specify the MIDI channel on which the bank select message will be transmitted. The range is **1–16 (ch)**.

6 Press the [ENTER] key to apply the settings.

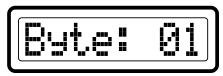
note If you decide to cancel, press the [EXIT] key to return to Play mode.

If you want to keep the changes you've made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see "Scene mode–[16] WRITE" (☞p.55).

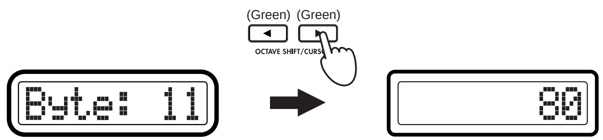
■ Free Mesg (Free message)

You can create and send your own MIDI messages. As an example, here's how to specify two messages; **All Note Off [B0, 7B, 00]** and Master Volume Off (set the Master Volume to zero) **[F0, 7F, 7F, 04, 01, 00, 00, F7]**.

1 Use the main encoder or the pads to specify the length (number of bytes) for the message you want to transmit. The range is **1–32 (bytes)**. In our example, the two messages total eleven bytes, so specify "11" here. (☞p.4 "About the trigger pad functions–Input numerical values")

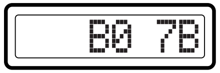


2 Press the OCTAVE SHIFT / CURSOR [►] key to proceed to specifying the message(s).



Setting mode

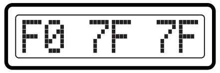
3 Use the main encoder or the pads to input **"B0"**, and press the OCTAVE SHIFT / CURSOR [▶] key to move to the next value you want to input. At this time, the [HEX LOCK] key will automatically light.



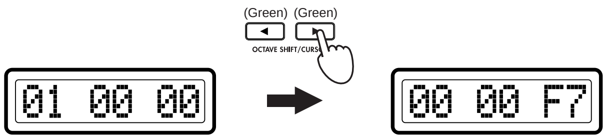
note Input using the pads will automatically be in hexadecimal form.

note When you have input the number of bytes you specified in step 1, the OCTAVE SHIFT / CURSOR [▶] key will light red.

4 When you've finished inputting the All Note Off message, continue using the main encoder or pads and the OCTAVE SHIFT / CURSOR [▶] key to input **"F0, 7F, 7F, ..."** and the rest of your message.



5 After you've input the **final 00**, press the OCTAVE SHIFT / CURSOR [▶] key to input **"F7"** (End Of Exclusive).



6 Press the [ENTER] key to apply the settings.

note If you decide to cancel, press the [EXIT] key to return to Play mode.

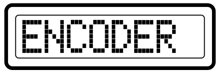
If you want to keep the changes you've made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see "Scene mode–[16] WRITE" (☞p.55).

[15] USB-MIDI PORT (USB-MIDI Port setting)

The USB-MIDI Port setting page lets you specify the USB-MIDI transmission port that each controller will use when the KONTROL49 is connected to a computer via USB. You can specify the transmission port separately for each controller.

These port settings apply only to the USB connection. All MIDI messages will be transmitted from the MIDI OUT A connector, regardless of the port settings.

1 Hold down the [SETTING] key and press pad [15].
You will be in the USB-MIDI Port setting page, and the [SETTING] key and pad [15] will light. The main display will indicate "Controller Select" (select the controller for which you want to make settings).



2 Use the main encoder to select the controller whose transmission port you want to specify.

ENCODER
Specify the transmission port for the encoders.

SLIDER
Specify the transmission port for the sliders.

PAD 1–8
Specify the transmission port for the pads [1]–[8].

PAD 9–16
Specify the transmission port for the pads [9]–[16].

PITCH
Specify the transmission port for the Pitch Bend controller.

MOD
Specify the transmission port for the Mod Wheel controller.

VECTOR-X
Specify the transmission port for the X-axis of the vector joystick.

VECTOR-Y
Specify the transmission port for the Y-axis of the vector joystick.

SW1/2
Specify the transmission port for switch 1 and switch 2.

PEDAL
Specify the transmission port for a connected foot controller.

FOOT SW
Specify the transmission port for a connected damper pedal or pedal switch.

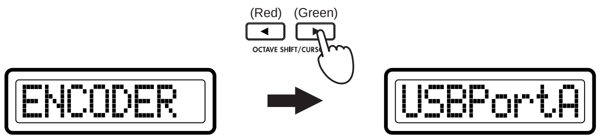
KEYBOARD
Specify the transmission port for the keyboard.

MAIN ENC
Specify the transmission port for program change or bank select messages sent by the main encoder.

MESG A
Specify the transmission port for MIDI messages transmitted by holding down the [MESSAGE] key and pressing a pad [2]–[8], and for MIDI Clock messages.

MESG B
Specify the transmission port for user MIDI messages specified for each scene and transmitted by pressing pads [9]–[16].

3 Press the OCTAVE SHIFT/CURSOR [►] key to proceed to “USBPort” (select the port).



4 Use the main encoder to select the transmission port.

A (USB Port A)
The MIDI messages assigned to the controller will be transmitted to the computer application via port A. (See “About the KONTROL49 and the driver ports” below)

B (USB Port B)
The MIDI messages assigned to the controller will be transmitted to the computer application via port B. (See “About the KONTROL49 and the driver ports” below)

5 Press the OCTAVE SHIFT/CURSOR [◄] key to return to “Controller Select,” and specify the transmission port for other controllers. (☞**Steps 2–4**)

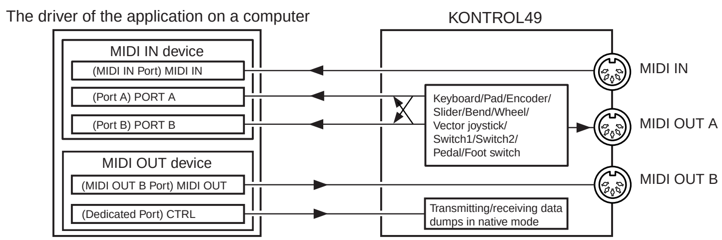
6 When you have finished making settings for each controller, press the [ENTER] key. The settings will be updated, and you will return to Play mode.

note If you want to keep the new settings, you must save them in Scene mode. If you turn off the power or select a different scene without saving, your new settings will be lost. (☞p.55 “Scene mode–[16] WRITE”)

note The port settings are saved independently for each scene.

About the KONTROL49 and the driver ports

The KONTROL49’s USB-MIDI connection communicates with the computer using 3 input ports and 2 output ports, as described below.



MIDI IN devices

MIDI IN Port

MIDI messages received by the KONTROL49's MIDI IN connector are sent to the computer via this port. If you are using the KONTROL49 as a USB-MIDI interface, select this port in your MIDI software to receive input from external MIDI gear, such as other synthesizers, external sequencers, and so on.

Ports A and B

MIDI messages from the KONTROL49's keyboard, sliders, encoders, and other controllers will be sent via these ports. The settings in the USB-MIDI Port setting page determine which port is used by each group of controllers. You may find it convenient to use port A for the keyboard and port B for the encoders, sliders, and other controllers.
If you want to control your computer application from the KONTROL49, select one of these ports as the application's remote control MIDI input port. (Installation Guide, ☞p.11 "Input Settings for Applications")

MIDI OUT devices

MIDI OUT B port

MIDI messages sent by your software will be sent directly to the KONTROL49's MIDI OUT B connector, without change.
Select this port as the MIDI output port in your application if you want to use the KONTROL49 as a USB-MIDI interface, to transmit MIDI messages from your computer application to an external device.

Dedicated port (CTRL)

This is only used to transmit/receive data dumps in the native mode. For details, see "Appendices–About native Korg mode" (☞p.58).

About the KONTROL49's MIDI connectors

When not connected via USB

MIDI IN connector

MIDI messages received here will be passed through to the KONTROL49's MIDI OUT B connector.
The KONTROL49 may also receive scene change commands using this connector.
In KORG Native mode, system exclusive messages will be received here.

MIDI OUT A connector

MIDI data from the KONTROL49's keyboard and other controllers is transmitted via this connector.

MIDI OUT B connector (MIDI THRU)

Messages received via the KONTROL49's MIDI IN connector are sent from the MIDI OUT B connector without change (THRU).

When connected via USB

MIDI IN connector

Messages received here will be sent to the software application running on your computer using the USB MIDI IN port.

MIDI OUT A connector

This connector transmits messages from all the KONTROL49's controllers, regardless of whether they are assigned to USB port A or USB port B.

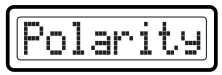
MIDI OUT B connector

MIDI messages generated by your software application via the USB MIDI OUT B port will be sent directly to the MIDI OUT B connector without change.

[16] GLOBAL (Global setting)

Here you can make settings for the connected pedals, the display backlight color, and the pad illumination.

1. Hold down the [SETTING] key and press pad [16].
   The [SETTING] key and pad [16] will light; now you can make Global settings. The main display shows the item you are setting.



2. Use the main encoder to select the item you want to set.

   Polarity (Polarity setting)

   Specify the polarity of the damper pedal or pedal switch connected to the rear panel ASSIGNABLE SWITCH jack.

PdlCalib (Pedal Calibration)

Specify the effective range of the pedal connected to the rear panel ASSIGNABLE PEDAL jack. Make this setting if operating the pedal does not produce the expected result.

Backlit (LCD Backlit setting)

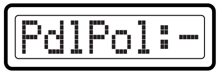
Specify the backlight color of the main display and sub-displays. For the sub-displays you can specify the backlight color separately for the encoders and sliders. The display backlight color will change depending on the controller you operate.

PadBlink (PAD Illumination setting)

Specify the illumination of the pads when they are used to transmit a MIDI message.

■ Pedal Polarity setting

1 When you choose the Pedal Polarity setting, the main display will indicate "Polarity setting."



2 Use the main encoder to select the polarity of the pedal you have connected.

+: Choose this if the connected pedal uses "+" (↑) polarity.

–: Choose this if the connected pedal uses "–" (↓) polarity.
Use the "–" setting if you've connected a Korg damper pedal (the optional DS-1H) or a Korg pedal switch (the optional PS-1). You should also use this setting if no pedal is connected to the PEDAL jack.

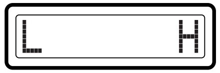
3 Press the [ENTER] key.
The settings will be saved, and you will return to Play mode.

note If you decide to cancel, press the [EXIT] key to return to Play mode.

Never turn off the power while settings are being saved. Doing so may destroy internal data.

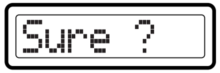
■ Pedal Calibration setting

1 When you choose the Pedal Calibration setting, the main display will show the range between maximum and minimum.



2 Move the connected pedal between maximum and minimum.
The range in which you moved the pedal will be shown as "*" symbols in the main display.

3 Press the OCTAVE SHIFT / CURSOR [►] key.
The main display will indicate "Sure?", asking you whether you want to save the calibration setting.



4 Press the [ENTER] key to save the calibration setting.
When the setting has been saved, the main display will indicate "Complete" and you will return to Play mode.



Press the [EXIT] key, and the scene name will appear.

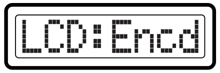
note If you decide to cancel, press the [EXIT] key to return to Play mode.

If the calibration setting was not successful, an indication of "CalibErr" will appear when you press the [ENTER] key. Please try the procedure once again.

Never turn off the power while settings are being saved. Doing so may destroy internal data.

■ LCD Backlight setting

1 When you choose the LCD Backlight setting, the main display will indicate “LCD Backlight setting” (select the display to set).



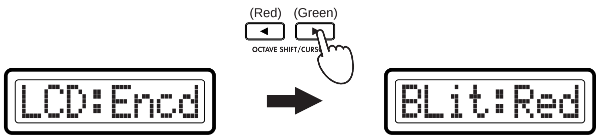
2 Use the main encoder to select the display for which you want to make backlight settings.

Encd (Encoder)
Specify the backlight color of the sub-displays when they are showing the encoders.

Sldr (Slider)
Specify the backlight color of the sub-displays when they are showing the sliders.

Main
Specify the backlight color of the main display.

3 Press the OCTAVE SHIFT / CURSOR [►] key to move to “Backlig Select” (select the backlight color).



4 Use the main encoder to select the backlight color.

Off: Backlight off
Red: red
Grn: green
Org: orange

5 Press the OCTAVE SHIFT / CURSOR [◄] key to return to “Display Select,” and make settings for another display in the same way.

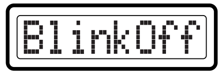
6 When you have finished making settings for each display, press the [ENTER] key. The settings will be saved, and you will return to Play mode.

If you decide to cancel, press the [EXIT] key to return to Play mode.

Never turn off the power while settings are being saved. Doing so may destroy internal data.

■ Pad Illumination setting

1 When you choose the Pad Illumination setting, the main display will indicate “Padblink setting” (make settings for pad illumination).



2 Use the main encoder to specify whether a pad will light briefly (“one-shot”) or not change when you play a pad in Play mode.

BlinkOff: The illumination will not change. (The pad will remain dark or lit green.)

BlinkOn: The pad will briefly light or go dark.

3 Press the [ENTER] key.
The settings will be saved, and you will return to Play mode.

If you decide to cancel, press the [EXIT] key to return to Play mode.

Never turn off the power while settings are being saved. Doing so may destroy internal data.

Message mode

In Message mode you can transmit various types of MIDI messages.

Message mode is divided into sixteen pages. Pads [1]–[8] will transmit preset MIDI messages. Pads [9]–[16] will transmit the messages you create in the Setting mode [14] MESSAGE page.

In Play mode, you can hold down the [MESSAGE] key and press a pad [1]–[16] to transmit the MIDI messages listed below. While you hold down the [MESSAGE] key, pads [1]–[8] will light red, and pads [9]–[16] to which MIDI messages are assigned will light green.

Alternatively, you can hold down the [EXIT] key and press the [MESSAGE] key; the main display will indicate “MesgPad?”, and the KONTROL49 will wait for you to select a message. From this state you can press a pad to transmit a message. If you press a pad to transmit a message, the KONTROL49 will remain in this state after the message is transmitted (Mode Lock). You can then press another pad to transmit another message. To exit this state, press the [EXIT] key.

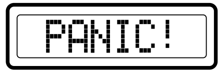
Pad No.	Page	Content
Pad [1]	Panic message	Transmit All Note Off, All Sound Off, and Reset All Controller messages. (☞p.49)
Pad [2]	Snapshot message	Transmit the values of the encoders and sliders. (☞p.50)
Pad [3]	All Note Off message	Transmit an All Note Off message. (☞p.50)
Pad [4]	GM On message	Transmit a GM System On message. (☞p.50)
Pad [5]	Stop message	Transmit the realtime message Stop. (☞p.50)
Pad [6]	Start message	Transmit the realtime message Start. (☞p.51)
Pad [7]	Continue message	Transmit the realtime message Continue. (☞p.51)
Pad [8]	Tap tempo message	Adjust the tempo. (☞p.51)
Pad [9]–[16]	User message	Messages you assign in Setting mode (☞p.51)

note The Setting mode USB-MIDI Port parameter specifies the port from which the message will be transmitted. (☞p.44 “Setting mode–[15] USB-MIDI PORT (USB-MIDI Port setting)”)

[1] PANIC (Panic message)

This transmits **All Note Off [Bn, 7B, 00]**, **All Sound Off [Bn, 78, 00]**, and **Reset All Controllers [Bn, 79, 00]** messages on all MIDI channels.
You can execute this if the connected software becomes unstable or if “stuck notes” occur on a connected MIDI sound module. (The numbers in the brackets are the hexadecimal values for these messages; “Bn” is the current MIDI channel.)

1 Hold down the [MESSAGE] key and press pad [1].
Pad [1] will briefly go dark, and All Note Off, All Sound Off, and Reset All Controllers will be transmitted on all MIDI channels.
The main display will indicate “PANIC!”



Release the [MESSAGE] key to return to Play mode.

note Only in the case of the Panic message, the messages will be transmitted from both USB Port A and USB Port B, regardless of the Setting mode [15] USB-MIDI PORT (USB-MIDI Port setting).

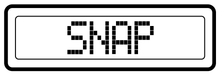
[2] SNAP (Snapshot message)

This transmits the current values of the encoders and sliders (Snapshot function). This is useful when you want to transmit the MIDI messages assigned to the encoders and sliders so that they can be recorded at the beginning of a song on your sequencer, or used as initial settings for your DAW etc.

note The Snapshot function transmits the current values for all of the encoders and sliders at once.

1. In Play mode, set the encoders and sliders to the desired settings. The sub-displays indicate the value while you are operating the controller.

2. Hold down the [MESSAGE] key and press pad [2].
Pad [2] will briefly go dark, and the encoder and slider values will be transmitted. The main display will indicate "SNAP."

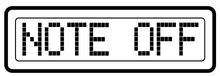


Release the [MESSAGE] key to return to Play mode.

[3] NOTE OFF (All Note Off message)

This transmits an **All Note Off [Bn, 7B, 00]** message on all MIDI channels.

1. Hold down the [MESSAGE] key and press pad [3].
Pad [3] will briefly go dark, and an All Note Off message will be transmitted on all MIDI channels. The main display will indicate "NOTE OFF."

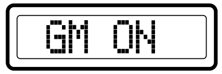


Release the [MESSAGE] key to return to Play mode.

[4] GM ON (GM On message)

This transmits a **GM System On [F0, 7E, 7F, 09, 01, F7]** message.

1. Hold down the [MESSAGE] key and press pad [4].
Pad [4] will briefly go dark, and a GM System On message will be transmitted. The main display will indicate "GM ON."

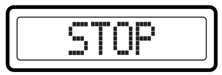


Release the [MESSAGE] key to return to Play mode.

[5] STOP (Stop message)

This transmits the realtime message **Stop [FC]**.

1. Hold down the [MESSAGE] key and press pad [5].
Pad [5] will briefly go dark, and the realtime message Stop will be transmitted. The main display will indicate "STOP."

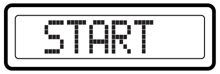


Release the [MESSAGE] key to return to Play mode.

[6] START (Start message)

This transmits the realtime message **Start [FA]**.

1 Hold down the [MESSAGE] key and press pad [6].
Pad [6] will briefly go dark, and the realtime message Start will be transmitted. The main display will indicate “START.”

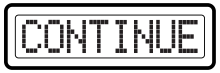


Release the [MESSAGE] key to return to Play mode.

[7] CONTINUE (Continue message)

This transmits the realtime message **Continue [FB]**.

1 Hold down the [MESSAGE] key and press pad [7].
Pad [7] will briefly go dark, and the realtime message Continue will be transmitted. The main display will indicate “CONTINUE.”



Release the [MESSAGE] key to return to Play mode.

[8] TAP (Tap tempo message)

You can set the tempo of a sequencer etc. by pressing pad [8] at regular intervals.

1 Hold down the [MESSAGE] key and press pad [8] two or more times at the desired tempo.
Pad [8] will briefly go dark, and the main display will indicate the tempo (to the first decimal place) of the timing clock messages the KONTROL49 is transmitting.



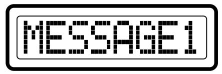
Release the [MESSAGE] key to return to Play mode.

note If you hold down the [EXIT] key and press the [MESSAGE] key to select the Mode Lock state, you can set the tempo simply by pressing pad [8] without having to hold down the [MESSAGE] key.

[9]–[16] USER MESG 1–8 (User message)

Here’s how to transmit the messages you created in the Setting mode [14] MESSAGE page.

1 Hold down the [MESSAGE] key and press a pad [9]–[16].
The pad you pressed will briefly light orange, and the message you assigned will be transmitted. The main display will show “MESSAGE number,” where the number is 1–8, corresponding to pads [9]–[16].



Release the [MESSAGE] key to return to Play mode.

Scene mode

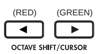
In Scene mode you can select and save scenes, load preset scenes, and transmit and receive data dumps of individual scenes (or scene “sets”) to and from a computer.

Scene mode is divided into five pages.
You can hold down the [SCENE] key and press a pad [1]–[16] to select the scenes listed below or to move to a function page such as for saving a scene. While you hold down the [SCENE] key, the pad of the currently selected scene will blink. Then press one of the following pads to select a scene or enter a page for saving a scene, etc. Alternatively, you can hold down the [EXIT] key and press the [SCENE] key; the main display will indicate “ScenePad?” and the KONTROL49 will wait for you to select a page (Mode Lock). Now you can press a pad to select a page.

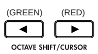
Pad No.	Page	Contents
Pad [1]–[12]	Select Scene	Select a scene from internal memory. (☞p.52)
Pad [13]	MIDI Channel	Specify the MIDI channel(☞p.53)
Pad [14]	Dump	Save/load scenes to/from a computer. (☞p.53)
Pad [15]	Preload	Load the preset scenes. (☞p.54)
Pad [16]	Write	Save a scene into internal memory. (☞p.55)

About the OCTAVE SHIFT/CURSOR keys, [ENTER] key, and [EXIT] key

On the [13] MIDI Channel, [15] PRELOAD and [16] WRITE pages, you can use the OCTAVE SHIFT / CURSOR [◄] / [►] keys as cursor keys to move between parameters.
When you press the [SCENE] key and a pad to enter one of these pages, the key(s) for the direction(s) in which you can move will light green. You cannot move in a direction in which the key is dark or lit red.



: You can move toward the right to another parameter



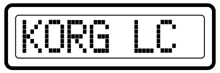
: You can move toward the left to another parameter

When you come to the last parameter in a page, the [ENTER] key will blink. Press the [ENTER] key to execute the Load or Write operation and return to Play mode. If you decide to cancel, press the [EXIT] key.

[1]–[12] Select Scene

Here’s how to select one of the scenes stored in the KONTROL49’s internal memory.

1 Hold down the [SCENE] key and press the pad of the scene number you want to use ([1]–[12]).
The pad will blink, and the main display will show the name of the selected scene.



Release the [SCENE] key to return to Play mode.

note When you turn on the power, the last-selected scene will be selected.

Be aware that if you have modified the settings of the currently selected scene, re-selecting that scene will revert to the unmodified settings.

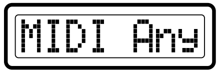
Loading a scene merely changes the internal settings of the KONTROL49; it does not cause MIDI messages to be transmitted from the USB connector or MIDI connector.

Never turn off the power while changing scenes; doing so may cause the internal data to be damaged.

[13] MIDI Channel

Here you can select the MIDI channel for the currently selected scene, and the global MIDI channel.
Normally, the controllers of each scene will transmit messages on the MIDI channel that you specify for each controller in Setting mode (the “Any” setting described below). However, you can use the settings in this page to specify a MIDI channel for the entire scene, so that messages from all controllers will be transmitted on this MIDI channel regardless of the settings of the individual controllers.

1 Hold down the [SCENE] key and press pad [13].
Now you can make MIDI channel settings, and the [SCENE] key and pad [13] will light, and the [ENTER] key will blink.
The main display shows the current MIDI channel setting for the scene.



2 Use the main encoder or the pads to select the MIDI transmit channel. (☞p.4 “About the trigger pad functions–Input numerical values”)

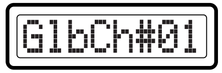
Any Ch (Any)
If you select “Any Ch,” messages will be transmitted on the MIDI channel specified for each controller.

ScnCh#01–16 (Scene MIDI Channel)
MIDI messages from all controllers will be transmitted on the MIDI channel you select here.

You can’t use the pads to select the “Any Ch” setting.

The scene MIDI channel is stored separately for each scene. If you want to keep the changes you’ve made, save them in Scene mode. If you turn off the power or select a different scene without saving, your changes will be discarded. For details, see “Scene mode–[16] WRITE” (☞p.55).

3 Use the OCTAVE SHIFT / CURSOR [◀] / [▶] keys to move to “Global MIDI Channel.”



4 Use the main encoder or the pads to select the global MIDI channel.
The range is **1–16 (ch)**.

5 Press the [ENTER] key.
The settings will be saved, and you will return to Play mode.

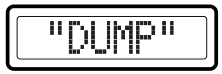
note If you decide to cancel, press the [EXIT] key to return to Play mode.

Never turn off the power while settings are being saved. Doing so may destroy internal data.

[14] DUMP

In the Dump page you can transfer data between the KONTROL49 and Editor Librarian software running on your computer. You can transfer both scene parameters and global data.

1 Hold down the [SCENE] key and press pad [14].
You will enter the Dump page, and the [SCENE] key and pad [14] will light.



2 From the Editor Librarian software running on your computer, transmit a MIDI Data Dump or a Dump Request to transfer data.

For details on how to transfer data to and from the Editor Librarian software, refer to “Editor Librarian software manual” on the included CD-ROM.

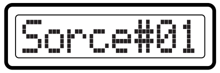
3 Press the [EXIT] key to return to Play mode.

note If you are using the Editor Librarian software, the KONTROL49 will move to the Dump page automatically.

[15] PRELOAD

Here you can re-load any of the factory-preset scenes into the KONTROL49’s internal memory.
You can load any of the twelve preset scenes into any scene number.

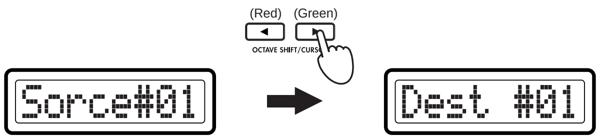
1. Hold down the [SCENE] key and press pad [15].
You will enter the Preload page, and the [SCENE] key will light.
The main display will indicate “Source” (select the preset that you want to load), and that pad will blink.



note The selectable parameter or value will blink in the main display.

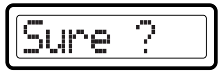
2. Use the main encoder or the pads to select the preset scene that you want to load. If you use the pads, simply press the pad for the scene you want to load.

3. Press the OCTAVE SHIFT / CURSOR [►] key to proceed to “Destination” (select the loading destination).

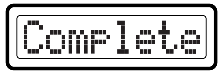


4. Use the main encoder or the pads to select the destination into which you want to load the preset scene.

5. Press the OCTAVE SHIFT / CURSOR [►] key.
The main display will ask “Sure ?” (“Are you sure you want to load?”).



6. Press the [ENTER] key to load the preset scene.
When loading is completed, the main display will indicate “Complete” and you will return to Play mode.



If you press the [EXIT] key, the scene name will be displayed.

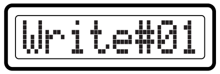
note If you decide to cancel, press the [EXIT] key to return to Play mode.

Never turn off the power while loading data; doing so may cause the internal data to be damaged.

[16] WRITE

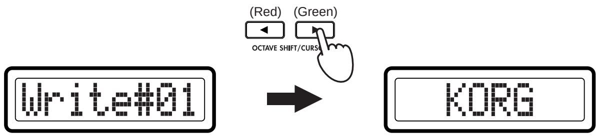
Here you can save the current controller assignments as a scene.
You can save twelve different scenes in the KONTROL49's internal memory.

1 Hold down the [SCENE] key and press pad [16].
You will enter the WRITE page, and the [SCENE] key will light. The main display will show the current scene number, and the corresponding pad will blink.



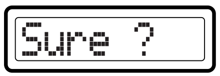
2 Use the main encoder or the pads to select the writing-destination.

3 Press the OCTAVE SHIFT/CURSOR [►] key to proceed to "Name" (select a name for the scene).



4 Specify the desired name for the assignment. In Play mode, the name you specify is shown in the main-display. For the procedure, refer to "Inputting a name" (☞p.22).

5 Press the OCTAVE SHIFT/CURSOR [►] key or the [ENTER] key.
The main display will ask "Sure ?" ("Are you sure you want to write?").



6 Press the [ENTER] key to execute the Write operation.
When writing is completed, the main display will indicate "Complete" and you will return to Play mode. The scene you wrote will be selected.



If you press the [EXIT] key, the scene name will be displayed.

note If you decide to cancel, press the [EXIT] key to return to Play mode.

⚠ Never turn off the power while writing; doing so may cause the internal data to be damaged.

Appendices

Available MIDI messages

The KONTROL49 lets you transmit the following MIDI messages.

Channel messages

Message	Function
8n	Note-on
9n	Note-off
An	Polyphonic Key Pressure
Bn	Control Change/Mode Message
Cn	Program Change
Dn	Channel Aftertouch
En	Pitch Bend Change

*n: MIDI channel (0–F)

System Realtime messages

Message	Function
F0	System Exclusive message
F1	MIDI Time Code
F2	Song Position Pointer
F3	Song Select
F6	Tune Request
F7	End Of System Exclusive
F8	Timing Clock (☞Message mode [8] TAP)
FA	Start (☞Message mode [6] START)
FB	Continue (☞Message mode [7] CONTINUE)
FC	Stop (☞Message mode [5] STOP)
FE	Active Sensing
FF	System Reset

MIDI Control Change messages

CC# (Hex)		Function
000 (00)	032 (20)	Bank Select MSB/LSB
001 (01)	033 (21)	Modulation MSB/LSB
002 (02)	034 (22)	Breath Controller MSB/LSB
003 (03)	035 (23)	undefined
004 (04)	036 (24)	Foot Controller MSB/LSB
005 (05)	037 (25)	Portamento MSB/LSB
006 (06)	038 (26)	Data Entry MSB/LSB
007 (07)	039 (27)	Channel Volume MSB/LSB
008 (08)	040 (28)	Balance MSB/LSB
009 (09)	041 (29)	undefined
010 (0A)	042 (2A)	Pan MSB/LSB
011 (0B)	043 (2B)	Expression MSB/LSB
012 (0C)	044 (2C)	Effect Control 1 MSB/LSB
013 (0D)	045 (2D)	Effect Control 2 MSB/LSB
016 (10)	048 (30)	General Purpose Controller 1 MSB/LSB
017 (11)	049 (31)	General Purpose Controller 2 MSB/LSB
018 (12)	050 (32)	General Purpose Controller 3 MSB/LSB
019 (13)	051 (33)	General Purpose Controller 4 MSB/LSB
020 (14) ⋮ 031 (1F)	052 (34) ⋮ 063 (3F)	undefined
064 (40)		Hold 1 (Damper, Sustain)
065 (41)		Portamento Switch (on/off)
066 (42)		Sostenuto
067 (43)		Soft Pedal
068 (44)		Legato Foot Switch
069 (45)		Hold 2
070 (46)		Sound Controller 1 (Sound Variation)
071 (47)		Sound Controller 2 (Resonance)
072 (48)		Sound Controller 3 (Release Time)
073 (49)		Sound Controller 4 (Attack Time)
074 (4A)		Sound Controller 5 (Brightness)
075 (4B)		Sound Controller 6 (Decay Time)
076 (4C)		Sound Controller 7 (Vibrato Rate)
077 (4D)		Sound Controller 8 (Vibrato Depth)
078 (4E)		Sound Controller 9 (Vibrato Delay)
079 (4F)		Sound Controller 10
080 (50)		General Purpose Controller 5
081 (51)		General Purpose Controller 6
082 (52)		General Purpose Controller 7

CC# (Hex)		Function
083 (53)		General Purpose Controller 8
084 (54)		Portamento Control
085 (55) ⋮ 090 (5A)		undefined
091 (5B)		Effect Depth (Reverb Send Level)
092 (5C)		Effect Depth (Tremolo Depth)
093 (5D)		Effect Depth (Chorus Send Level)
094 (5E)		Effect Depth (Celeste Depth)
095 (5F)		Effect Depth (Phase Depth)
096 (60)		Data Increment
097 (61)		Data Decrement
098 (62)	099 (63)	NRPN LSB/MSB
100 (64)	101 (65)	RPN LSB/MSB
102 (65) ⋮ 119 (77)		undefined

Channel Mode messages

CC# MSB/LSB (Hex)		Function
120 (78)		All Sound Off
121 (79)		Reset All Controllers
122 (7A)		Local Control
123 (7B)		All Notes Off
124 (7C)		Omni Off
125 (7D)		Omni On
126 (7E)		Mono On (Poly Off)
127 (7F)		Poly On (Mono Off)

RPN MSB/LSB

MIDI message	MSB (Hex)	LSB (Hex)
RPN Fine Tune	00 (00)	01 (01)
RPN Coarse Tune	00 (00)	02 (02)
RPN Pitch Bend Range	00 (00)	00 (00)

Note no.

Note	No.	(Hex)	Note	No.	(Hex)	Note	No.	(Hex)	Note	No.	(Hex)
C-1	0	(00)	C2	36	(24)	C5	72	(48)	C8	108	(6C)
C#-1	1	(01)	C#2	37	(25)	C#5	73	(49)	C#8	109	(6D)
D-1	2	(02)	D2	38	(26)	D5	74	(4A)	D8	110	(6E)
D#-1	3	(03)	D#2	39	(27)	D#5	75	(4B)	D#8	111	(6F)
E-1	4	(04)	E2	40	(28)	E5	76	(4C)	E8	112	(70)
F-1	5	(05)	F2	41	(29)	F5	77	(4D)	F8	113	(71)
F#-1	6	(06)	F#2	42	(2A)	F#5	78	(4E)	F#8	114	(72)
G-1	7	(07)	G2	43	(2B)	G5	79	(4F)	G8	115	(73)
G#-1	8	(08)	G#2	44	(2C)	G#5	80	(50)	G#8	116	(74)
A-1	9	(09)	A2	45	(2D)	A5	81	(51)	A8	117	(75)
A#-1	10	(0A)	A#2	46	(2E)	A#5	82	(52)	A#8	118	(76)
B-1	11	(0B)	B2	47	(2F)	B5	83	(53)	B8	119	(77)
C0	12	(0C)	C3	48	(30)	C6	84	(54)	C9	120	(78)
C#0	13	(0D)	C#3	49	(31)	C#6	85	(55)	C#9	121	(79)
D0	14	(0E)	D3	50	(32)	D6	86	(56)	D9	122	(7A)
D#0	15	(0F)	D#3	51	(33)	D#6	87	(57)	D#9	123	(7B)
E0	16	(10)	E3	52	(34)	E6	88	(58)	E9	124	(7C)
F0	17	(11)	F3	53	(35)	F6	89	(59)	F9	125	(7D)
F#0	18	(12)	F#3	54	(36)	F#6	90	(5A)	F#9	126	(7E)
G0	19	(13)	G3	55	(37)	G6	91	(5B)	G9	127	(7F)
G#0	20	(14)	G#3	56	(38)	G#6	92	(5C)			
A0	21	(15)	A3	57	(39)	A6	93	(5D)			
A#0	22	(16)	A#3	58	(3A)	A#6	94	(5E)			
B0	23	(17)	B3	59	(3B)	B6	95	(5F)			
C1	24	(18)	C4	60	(3C)	C7	96	(60)			
C#1	25	(19)	C#4	61	(3D)	C#7	97	(61)			
D1	26	(1A)	D4	62	(3E)	D7	98	(62)			
D#1	27	(1B)	D#4	63	(3F)	D#7	99	(63)			
E1	28	(1C)	E4	64	(40)	E7	100	(64)			
F1	29	(1D)	F4	65	(41)	F7	101	(65)			
F#1	30	(1E)	F#4	66	(42)	F#7	102	(66)			
G1	31	(1F)	G4	67	(43)	G7	103	(67)			
G#1	32	(20)	G#4	68	(44)	G#7	104	(68)			
A1	33	(21)	A4	69	(45)	A7	105	(69)			
A#1	34	(22)	A#4	70	(46)	A#7	106	(6A)			
B1	35	(23)	B4	71	(47)	B7	107	(6B)			

Preset Scene Name

Scene 1	WAVESTATION (KORG)
Scene 2	MS-20 (KORG)
Scene 3	Polysix (KORG)
Scene 4	LegacyCell (KORG)
Scene 5	Cubase SX / SL (Steinberg)
Scene 6	Digital Performer 4 (MOTU)
Scene 7	Logic Pro / Express (Emagic)
Scene 8	Reason (Propellerhead)
Scene 9	SampleTank 2 Korg Edition (IK Multimedia)
Scene 10	Lounge Lizard EP-2 (Applied Acoustics Systems)
Scene 11	VOKATOR (Native Instruments)
Scene 12	Live (Ableton)

MIDI implementation

System exclusive messages

KONTROL49 format

F0: Exclusive status
42: Korg ID
4n: [n=0–F] Global MIDI channel 1–16
6E: Model ID
02: KONTROL49 sub-ID
ff: Function ID (type of message)
~
F7: End of exclusive

Switching scenes

When the KONTROL49 receives a message of **[F0, 42, 4n, 6E, 02, 1F, 14, ss, F7]** (ss=00: Scene number 1 – 0B: Scene number 12), it will switch to the specified scene. When the scene is switched, the KONTROL49 will transmit **[F0, 42, 4n, 6E, 02, 5F, 4F, ss, F7]**

Transmits scene or global data (data dumps)

The KONTROL49 can transmit scene parameters and global parameters in the form of MIDI exclusive data. The operation of transmitting MIDI exclusive data to a computer or external MIDI device is called a “data dump.” A data dump will be transmitted when the KONTROL49 receives a request from the Editor Librarian software.
Details of the data dump are described in the KONTROL49 MIDI implementation.

note Please contact your Korg distributor for the “MIDI implementation” (including information on the MIDI exclusive format).

About native Korg mode

In addition to its functionality as a general-purpose controller, the KONTROL49 also has a “native mode.”
In this native mode, the KONTROL49 can be used as a controller for software that specifically supports this mode.

The settings of Setting mode will be ignored. If you want to keep your settings, save them before entering native mode.

note The concept of modes such as Play, Setting, Message, and Scene are not used.

note Native mode also supports transmission and reception via the MIDI connectors.

note The USB port settings will also change in native mode.

Operation in native mode

1 In software that supports the Korg KONTROL49 native mode, select the native mode.
The display will show a message to indicate that you have entered native mode.

2 Operate the controllers as in normal mode.
The function of keys other than OCTAVE SHIFT / CURSOR [◀] / [▶] and the assignments of the various controllers will depend on the settings of your computer software. The OCTAVE SHIFT / CURSOR [◀] / [▶] keys will function as octave shift keys, and the octave setting will be reset when you enter native mode.

In native mode, the USB ports will transmit the following messages.

Port A: Proprietary messages for the keys and controllers

Port B: Note messages and pitch bend messages

3 To exit native mode, you can either make settings on your connected software that supports native mode, or hold down the KONTROL49's [SETTING] key, [MESSAGE] key, and [SCENE] key, and then press the [EXIT] key.
The KONTROL49 will return to Play mode.

note Normally you should exit native mode by using the appropriate menu command in your connected software. If the cable becomes disconnected or you are otherwise unable to exit native mode by using a menu command in your software, use the KONTROL49's keys to exit native mode.

note For details on how to enter and exit native mode, the message that appears on the main display when you enter native mode, and more about operations in native mode, refer to the owner's manual for your software that supports the KONTROL49's native mode.

Troubleshooting

■Power does not turn on

- Is the power switch in the correct position? (☞p.6)
- Could the KONTROL49 be connected to your computer via a USB hub? If the display indicates "LowPower," please use the AC adapter or a self-powered hub.

■Can't install the driver

- Is the included CD-ROM inserted in your CD drive?
  Make sure that the included CD-ROM is inserted correctly.
- Could the lens of your CD drive be dirty?
  Use a commercially-available lens cleaner to clean the lens.
- Are you attempting to install from a network CD drive?
  This software cannot be installed from a network-connected CD drive.

■Your software does not respond to the KONTROL49

- Is the USB cable connected correctly?
- Has your computer detected the connected KONTROL49?

  If you are using Windows XP, go to Control Panel → "Sounds and Audio Devices Properties" and click the Hardware tab.

  If you are using Mac OS X, go to Macintosh HD → Application folder → Utility folder → "Audio MIDI Settings," select the "MIDI Devices" tab, and check that the KONTROL49 has been detected.

⚠ Some computers may not recognize the KONTROL49 because of their hardware configuration.

- Check the KONTROL49's assignments and USB-MIDI port settings.
- Could you be in "Korg Native mode"?
  Exit native mode. (☞p.58)
- Could the KONTROL49 be in the "mode lock" state?
  Press the [EXIT] key to return to Play mode.
- The connected device or software may not support the messages you are transmitting. Refer to the owner's manual of the connected device or software to verify that it responds to the messages you are transmitting.

■ Connected external device or software does not synchronize

- Could the KONTROL49's MIDI Clock tempo be set to "Clock Off"?
- Check the MIDI Clock settings of the connected device or software.

■ Keyboard or pads do not transmit velocity

- If keyboard or pad velocity is assigned to the bend / wheel, the keyboard or pad velocity is ignored if the value is other than zero.
- Check the velocity settings. (Keyboard: ☞p.38 "[12] KEYBOARD (Keyboard setting)," Pads 1–8: ☞p.24 "[3] PAD 1–8 (PAD 1–8 assignment)," Pads 19–16: ☞p.26 "[4] PAD 9–16 (PAD 9–16 assignment)")

■ When you assign Polyphonic Pressure to the bend / wheel and play multiple keys, aftertouch does not apply to some keys

- When using Polyphonic Pressure, if you hold down more than one note on the keyboard, aftertouch applies only to the note you played last.

■ Notes are stuck

- If note messages are assigned to a pad, and the pad is set to Toggle operation, the corresponding note-off message may not be transmitted in some cases. If this occurs, execute the Message mode command [3] All Note Off (☞p.50) or [1] Panic (☞p.49).

Main specifications

Controllers
- Keyboard: 49-note velocity-sensitive keyboard
- Rotary encoders × 8
- Sliders × 8
- Pads × 16: velocity-sensitive
- Pitch Bend / Mod Wheel
- Vector joystick
- Switch 1 / Switch 2
- Main encoder ([VALUE] dial)

Display
- Main display: 8-character (8 × 5 pixel) LCD module with three-color backlight
- Sub display × 8: 8-character (8 × 5 pixel) LCD module with three-color backlight
- Tempo LED

Memory
- User memories: 12
- Global memory: 1

Connectors
- Pedal / Switch jacks
- MIDI IN / OUT connectors
- USB connector
- Power supply jack (DC9V)

Power supply
- DC9V, AC adapter
- USB bus-powered (when using the USB connector)

Current consumption
- When using USB bus power: approximately 350 mA (Max 450 mA)
- When using the AC adapter: approximately 350 mA (Max 450 mA)

Dimensions (W x D x H)
- 730 mm × 319 mm × 86 mm (28.7" × 12.6" × 3.39")

Weight
- 4.9 kg (10.8 lbs.)

Included items
- AC adapter
- USB cable
- CD-ROM (containing KONTROL49 Editor Librarian software, scene templates, drivers)
- Trigger pad name sheet and labels
- Owner's manual
- Installation Guide
- MIDI Implementation chart
- Software license agreement

Requirements for connection to a computer

Macintosh
Supported OS: Mac OS X 10.2 or later
Supported computers: Apple Macintosh with USB port capable of running Mac OS X

Windows
Supported OS: Microsoft Windows XP Home Edition / Professional
Supported computers: a computer with USB port capable of running Windows XP (USB chipsets manufactured by Intel Corporation are recommended)

Options
- Damper pedal DS-1H
- Pedal switch PS-1
- Foot controller EXP-2
- Exclusive volume pedal XVP-10

Appearance and specifications are subject to change without notice.
(Current as of October 2004)

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IMPORTANT NOTICE TO CONSUMERS

This product has been manufactured according to strict specifications and voltage requirements that are applicable in the country in which it is intended that this product should be used. If you have purchased this product via the internet, through mail order, and/or via a telephone sale, you must verify that this product is intended to be used in the country in which you reside.

WARNING: Use of this product in any country other than that for which it is intended could be dangerous and could invalidate the manufacturer's or distributor's warranty.

Please also retain your receipt as proof of purchase otherwise your product may be disqualified from the manufacturer's or distributor's warranty.

KORG INC.
4015-2 Yanokuchi, Inagi-city, Tokyo 206-0812 Japan

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